



BLACK & VEATCH Waste Science, Inc.

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400 Northridge Road, Suite 350, Atlanta, Georgia 30350, (404) 594-2500, Fax: (404) 587-2930

US EPA -- Region IV
Site Inspection Prioritization
Work Assignment No. 12

BVWS Project 52012.583
September 20, 1995

Mr. Doug Mundrick
Chief, South Superfund Remedial Branch
U.S. Environmental Protection Agency
345 Courtland Street, NE
Atlanta, Georgia 30365

Subject: Final Site Inspection Prioritization
James River Norwalk Site
Coweta County, GA
EPA ID No. GAD003913159

Dear Mr. Mundrick:

Enclosed please find one copy of the Final Site Inspection
Prioritization for James River Norwalk Site in Coweta County, Georgia.
If you have any questions, please contact me at 404/643-2320.

Very truly yours,

BLACK & VEATCH Waste Science, Inc.

Victor Blix
Project Manager

fw
Enclosures

cc: Doug Thompson, EPA PO, w/o enclosures
Deborah Davidson, EPA CO, w/o enclosures
Earl Bozeman, EPA WAM, w/o enclosures



BLACK & VEATCH Waste Science, Inc.

1201 Pacific Avenue, Suite 1100, Tacoma, Washington 98402-4301, (206) 383-1436, Fax: (206) 383-8930

U.S. Environmental Protection Agency
James River Norwalk Site
Work Assignment 12

BVWS Project 52012.583
July 14, 1995

Mr. Narindar Kumar, Chief
Site Assessment Section
U.S. Environmental Protection Agency
345 Courtland Street, NE
Atlanta, Georgia 30365

Subject: Site Inspection Prioritization
James River Norwalk Site
Coweta County, Florida
EPA ID GAD003913159

[Handwritten signature]
NRNP
9/25/95

Dear Mr. Kumar:

BLACK & VEATCH Waste Science, Inc. has been tasked by the U.S. Environmental Protection Agency (EPA) to conduct a Site Inspection Prioritization for the James River Norwalk Site (the site) in Newnan, Coweta County, Georgia. In accordance with the scope of work, a preliminary Hazard Ranking System (HRS) score was prepared to determine the need for future activities at the site.

The active facility is located within the city limits of Newnan, Georgia, in central Coweta County (Ref. 1). James River Corporation (formerly known as American Can Company) maintained an off-set platemaking plant which disposed of waste in an onsite drainfield from March 1975 until June 1980 (Refs. 2, p. 1; 3, p. 1; 4, p. 1). The drainfield consisted of five 100-foot long, 4-inch diameter PVC laterals fed from a common distribution box. The drainfield measured 52 feet across the laterals, covering approximately 5,200 square feet (Ref. 2, p. 1). According to design drawings, the drainfield was covered with 18 inches of backfill material (Ref. 3, p. 4). The drainfield was designed to receive a maximum flow of 5,000 gallons per day (gpd). The actual maximum flow was only 1,500 gpd, of which, approximately 15 gpd was reported to be waste material. The total amount of waste material

disposed of in the drainfield is estimated to be 21,600 gallons (Refs. 2, p. 1; 3, p. 1). The waste material was reported to contain cyanide, arsenic, mercury, chromium, copper, lead, and phenols (Ref. 2, p. 1).

The Waste Management Division of EPA requested a Site Screening Investigation (SSI) be conducted for the site (Ref. 2, p. 1). It was scheduled for the week of February 18, 1985. The objectives of the investigation were to: 1) determine if the soil in the drainfield was contaminated; 2) locate and sample any leachate streams from the site; and 3) gather background information (Ref. 2, p.2). However, neither sampling results nor a SSI report were included in the available file material.

Residents within a 4-mile radius of the site rely on surface water for potable water, which is supplied by the Newnan Water Utility and the Coweta County Water and Sewer Department (Refs. 5; 6). The City of Newnan operates two surface water intakes at Line Creek and White Oak Creek which are not located along the 15-mile surface water migration pathway (Refs. 1; 5). Water is pumped from the intake locations and then blended and filtered at the Newnan Waterworks plant (Ref. 7). Water is distributed throughout the county via an extensive system of water lines (Ref. 8). Coweta County owns an inactive intake station on Wahoo Creek, approximately 6 miles downstream from the site (Ref. 7).

An estimated 25 percent of the population outside the Newnan water service area use groundwater as a source of potable water (Refs. 9; 10). The aquifer of concern in the area is the unconfined residual soil/crystalline rock aquifer system (Ref. 11, pp. 5, 12, 13). Groundwater is contained within the pore spaces of the surficial deposits and joints and fractures in the bedrock. The depth to groundwater is dependent on precipitation and topography (Ref. 11, p. 12). There are no wellhead protection areas within 4 miles of the site (Ref. 12). The estimated population within a 4-mile radius of the site using groundwater from the soil/crystalline aquifer is radially distributed as follows: 0 - 0.25 mile, 0 persons; 0.25 - 0.50 mile, 0 persons; 0.50 - 1 mile, 9 persons; 1 - 2 miles, 181 persons; 2 - 3 miles, 546 persons; 3 - 4 miles, 607 persons (Refs. 1; 9; 10). The nearest well is approximately 1 mile north of the site (Ref. 13, pp. 98 - 105).


The drainfield is located on the knoll of a hill approximately 200 feet north of an unnamed tributary of Wahoo Creek (Ref. 2, p. 1). Local topography slopes steeply from the top of the knoll southeast towards Wahoo Creek (Refs. 1; 2, p. 1). The site is determined to be outside the 500-year designated floodplain (Ref. 14). Flow from the unnamed tributary of Wahoo Creek continues approximately 100 feet before entering into an unnamed pond. After draining the unnamed pond, the unnamed tributary flows approximately 1 mile north before entering Wahoo Creek. Wahoo Creek flows west for approximately 12 miles before reaching the Chattahoochee River (Ref. 1). Based on topographic maps, the flow in Wahoo Creek and unnamed tributaries is less than 10 cubic feet per second (cfs) (Ref. 1). The Chattahoochee River flows south-southwest at an average flow rate of 3,965 cfs (Ref. 15). The 15-mile target distance limit ends in the Chattahoochee River (Ref. 1). There are no surface water intakes along the 15-mile surface water migration pathway (Ref. 12).

No wetlands have been identified along the 15-mile surface water pathway (Ref. 1). The Chattahoochee River is classified as a fishery, and Wahoo Creek has the potential to support recreational fishing. The ranges of several federally endangered or threatened species may include the area within 4 miles of the site; however, exact species locations were not identified (Ref. 16). The Florida panther (*Felis concolor coryi*), Bachman's warbler (*Vermivora Bachmanii*), and red-cocked woodpecker (*Picoides brealis*) are federally designated endangered species with ranges occurring in the entire state (Ref. 16). The gray bat (*Myotis grisescens*), a federally designated endangered species, may also exist in west Georgia (Ref. 16, p. 1).

The facility is currently active; however, the number of workers at the facility is unknown (Ref. 4, p. 1). Approximately 20,534 people live within 4 miles of the site. The estimated population within 4 miles of the site is radially distributed as follows: 0 - 0.25 mile, 297 persons; 0.25 - 0.50 mile, 647 persons; 0.50 - 1 mile, 2,249 persons; 1 - 2 miles, 5,799 persons; 2 - 3 miles, 5,066 persons, 3 - 4 miles, 6,476 persons (Refs. 1; 9; 17). The nearest residences are located approximately 200 feet northwest of the site (Ref. 4, p. 1).

Because of the limited file information, it is recommended that further source characterization be conducted for this site to determine if contamination exists. Attached are all the references used during this evaluation. If you have any questions or comments, please contact me at (206) 383-1436 or Victor Blix at (404) 643-2320.

Sincerely,
BLACK & VEATCH Waste Science, Inc.

A handwritten signature in black ink that reads "Angela T. Zeigler for". The signature is written in a cursive, flowing style.

Robert D. Brockhaus, P.E.
Site Manager

rdb
Enclosure

REFERENCES

1. U.S. Geological Survey, 7.5-minute series Topographic Quadrangle Maps of Georgia: Newnan South, GA, 1965 (Photorevised 1973); Newnan North, GA, 1965 (Photorevised 1982); Madras, GA, 1965 (Photorevised 1983); Sharpsburg, GA, 1965 (Photorevised 1982); Whitesburg, GA, 1965 (Photorevised 1982), scale 1:24,000.
2. Study Plan, American Can Company, Newnan, Coweta County Georgia, ESD No. 85-121, Acct. No. 5TFA04DCZZ, February 1985.
3. Therese Sathue, James River Corporation, letter with attachments to John D. Taylor, Jr., Program Manager, Industrial and Hazardous Waste Program, Department of Natural Protection, Environmental Protection Agency, January 7, 1983. Subject: James River Corporation, CERCLA 103(c) Notification.
4. Kem Reliford, Civil Engineer, BLACK & VEATCH Waste Science, Inc., Field Inspection Report with map, March 11, 1995.
5. Larry Hand, Newnan Water Utility, telephone conversation with Robert Brockhaus, Project Engineer, BLACK & VEATCH Waste Science, Inc., April 5, 1995. Subject: Newnan Water Supply #1.
6. Edward Whitlock, Coweta County Water and Sewer Department, memorandum to Robert Brockhaus, BLACK & VEATCH Waste Science, Inc., April 18, 1995. Subject: Coweta County water supply.
7. Larry Hand, Newnan Water Utility, telephone conversation with Robert Brockhaus, Project Engineer, BLACK & VEATCH Waste Science, Inc., May 1, 1995. Subject: Newnan Water Supply #2.
8. Comprehensive Distribution Water Main Map With 5-Mile Radius Circle, Coweta County Water and Sewer Department, April 18, 1995, modification from a General Highway Map, Coweta County, Georgia, Scale 1 inch:1 mile, 1989.
9. U.S. Department of Commerce, Economics and Statistics Administration, Bureau of the Census, 1990 Census of Population Housing. Summary Population and Housing Characteristics, Georgia, 1990CPH-1-12, August 1991, excerpt, 2 pages.
10. Edward Whitlock, Coweta County Water and Sewer Department, telephone conversation with Robert Brockhaus, Project Engineer, BLACK & VEATCH Waste Science, Inc., May 1, 1995. Subject: Coweta County Water Supply.
11. C.N. Joiner, et. al., U.S. Geological Survey, Ground-Water Data for Georgia, 1987, Open-File Report 88-323, 1988.

12. Larry Hand, Newnan Water Utility, telephone conversation with Robert Brockhaus, Project Engineer, BLACK & VEATCH Waste Science, Inc., May 16, 1995. Subject: Newnan Water Supply #3.
13. C.W. Cressler, et. al., Georgia Department of Natural Resources, Georgia Environmental Protection Division, Georgia Geological Survey, and U.S. Geological Survey, Ground Water in the Greater Atlanta Region, Georgia, Information Circular 63, 1983.
14. Federal Emergency Management Agency, Flood Insurance Rate Map, Community-Panel Number 130062 0005B, City of Newnan, Georgia, November 15, 1978.
15. W.R. Stokes III, et. al., U.S. Geological Survey, Water Resources Data - Georgia, Water Year 1991, Water Data Report GA-91-1, excerpt, 4 pages.
16. U.S. Fish and Wildlife Service, Endangered and Threatened Species of the Southeastern United States (The Red Book), Southeast Region, Atlanta, Georgia, January 1992, revised, March 17, 1993.
17. U.S. EPA, Graphical Exposure Modeling System (GEMS) Database, compiled from U.S. Bureau of the Census data (1983).

CONFIDENTIAL
Hazard Ranking System Preliminary Score
for
James River Norwalk Site
Newnan, Coweta County, Georgia
EPA ID GAD003913159

The preliminary HRS score for the James River Norwalk Site was calculated using the Site Investigation Worksheets. Pathways evaluated include groundwater migration, surface water migration, soil exposure, and air migration. The score reflects a maximum Hazardous Waste Quantity value of 10 for all pathways, based on the estimated area of contaminated soil at the onsite drainfield. Although sample collection during a Site Screening Investigation was planned, no sample results were included in the project file. According to the EPA Study Plan for the site, the waste is reported to have contained cyanide, arsenic, mercury, chromium, copper, lead, and phenols. Analyses of the waste generated from the facility's plate making operation indicated the presence of the constituents.

The groundwater migration pathway was scored based on an evaluation of potential release of metals to the unconfined soil/crystalline rock aquifer system. Non-karst target and mobility values were used in evaluating the aquifer. Residents within a 4-mile radius mainly rely on surface water for potable water. An estimated 25 percent of the population outside the Newnan water service area use the residual soil/crystalline rock aquifer as a source of water. It is estimated that approximately 1,343 persons obtain potable water from wells within 4 miles of the site. The resulting groundwater water migration pathway score is minimal due to lack of an observed release and that most potable water is obtained from surface water.

The surface water migration pathway score was based upon an evaluation of the potential to release metals to unnamed tributaries of Wahoo Creek, Wahoo Creek, and the Chattahoochee River. The flow rates of the unnamed tributaries of Wahoo Creek and Wahoo Creek were both estimated between 0 - 10 cubic feet per second (cfs). The flow rate of the Chattahoochee River is estimated to be 3,965 cfs. The ranges of several endangered or threatened species may include the water bodies along the surface water migration pathway; however, exact locations have not been identified. The surface water intakes used to obtain potable water for the area are not along the 15-mile surface water migration pathway. The resulting surface water migration pathway score is minimal due to lack of an observed release.

The soil exposure pathway was based on assumed surficial contamination. No surficial soil analyses were included in the available file material. Currently, the facility is active. The number of workers at the facility was not documented; therefore, it was assumed that up to 100 persons may be employed at the facility. The drainfield was covered with 18 inches of backfill material and is currently overgrown with vegetation. The soil exposure pathway score is minimal due to lack of an onsite residential population.

The air migration pathway score was based upon a potential to release and a target value derived from potential human and sensitive environment populations. Approximately 20,534 persons reside within 4 miles of the site. Population distribution was estimated using a combination GEMS information and house count from topographic maps. Approximately 113 acres of wetlands are located within 4 miles of the site. The air migration pathway is minimal due to the lack of an observed release.

No environmental samples have been collected at the site or were available in the project file. Further source characterization is recommended for this site.

HRS SCORING SUMMARY

$$S_{gw} = 1.47$$

$$S_{sw} = 9.39$$

$$S_{so} = 0.60$$

$$S_{air} = 2.06$$

$$\text{OVERALL SCORE} = 4.87$$

HRS Scoresheets

Site Name: James River Norwalk Site
 Location: Coweta County, Georgia

GROUNDWATER MIGRATION PATHWAY SCORESHEET

<u>Likelihood of Release to an Aquifer</u>	<u>Maximum Value</u>	<u>Assigned Value soil/crystalline</u>
1. Observed Release	550	0
2. Potential to Release		
2a. Containment	10	10
2b. Net Precipitation	10	6
2c. Depth to Aquifer	5	3
2d. Travel Time	35	15
2e. Potential to Release (lines 2a x (2b + 2c + 2d))	500	240
3. Likelihood of Release (higher of lines 1 and 2e.)	550	240

Waste Characteristics

4. Toxicity/Mobility	a	10,000
5. Hazardous Waste Quantity	a	10
6. Waste Characteristics	100	18

Targets

7. Nearest Well	50	9
8. Population		
8a. Level I Concentrations	b	0
8b. Level II Concentrations	b	0
8c. Potential Contamination	b	14
8d. Population (lines 8a + 8b + 8c)	b	14
9. Resources	5	5
10. Wellhead Protection Area	20	0
11. Targets (lines 7 + 8d + 9 + 10)	b	28

Groundwater Migration Score for an Aquifer

12. Aquifer Score [(lines 3 x 6 x 11)/82,500]	100	1.47
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Groundwater Migration Pathway Score

13. Pathway Score (Sgw) - Highest value for all aquifers evaluated	100	1.47
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- a maximum value applies to waste characteristics category
 o maximum value not applicable
 c do not round to nearest integer

Site Name: James River Norwalk Site
 Location: Coweta County, Georgia

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET

DRINKING WATER THREAT

<u>Likelihood of Release</u>	<u>Maximum Value</u>	<u>Assigned Value</u>
1. Observed Release	550	0
2. Potential Release by Overland Flow		
2a. Containment	10	10
2b. Runoff	25	1
2c. Distance to Surface Water	25	20
2d. Potential to Release by Overland Flow lines 2a x (2b + 2c)	500	210
3. Potential to Release by Flood		
3a. Containment	10	10
3b. Flood Frequency	50	0
3c. Potential to Release by Flood (Lines 3a x 3b)	500	0
4. Potential to Release (lines 2d + 3c)	500	210
5. Likelihood of Release (Higher of lines 1 and 4)	550	210

HRS Section 3.1.2

Waste Characteristics

6. Toxicity/Persistence	a	10,000
7. Hazardous Waste Quantity	a	10
8. Waste Characteristics	100	18

Targets

9. Nearest Intake	50	0
10. Population		
10a. Level I Concentrations	b	0
10b. Level II Concentrations	b	0
10c. Potential Contamination	b	0
10d. Population (lines 10a + 10b + 10c)	b	0
11. Resources	5	5
12. Targets (lines 9 + 10d + 11)	b	5

Drinking Water Threat Score

13. Drinking Water Threat Score [(lines 5 x 8 x 12)/82500]	100	0.23
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- a maximum value applies to waste characteristics category
 b maximum value not applicable
 c do not round to nearest integer

Site Name: James River Norwalk Site
 Location: Coweta County, Georgia

**SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
 (continued)**

HUMAN FOOD CHAIN THREAT

<u>Likelihood of Release</u>	<u>Maximum Value</u>	<u>Assigned Value</u>
14. Likelihood of Release (Same as line 5)	550	210
<u>Waste Characteristics</u>		
15. Toxicity/Persistence/Bioaccumulation	a	500,000,000
16. Hazardous Waste Quantity	a	10
17. Waste Characteristics	100	180
<u>Targets</u>		
18. Food Chain Individual	50	0
19. Population		
19a. Level I Concentrations	b	0
19b. Level II Concentrations	b	0
19c. Potential Human Food Chain Contamination	b	20
19d. Population (lines 19a + 19b + 19c)	b	20
20. Targets (lines 18 + 19d)	b	20
<u>Human Food Chain Threat Score</u>		
21. Human Food Chain Threat Score [(lines 14 x 17 x 20)/82500]	100	9.16

a maximum value applies to waste characteristics category
 b maximum value not applicable
 c do not round to nearest integer

Site Name:

James River Norwalk Site

Location:

Coweta County, Georgia

**SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
(continued)**

ENVIRONMENTAL THREAT

<u>Likelihood of Release</u>	<u>Maximum Value</u>	<u>Assigned Value</u>
22. Likelihood of Release (Same as line 5)	550	210

Waste Characteristics

23. Ecosystem Toxicity/Persistence/Bioaccumulation	a	500,000,000
24. Hazardous Waste Quantity	a	10
25. Waste Characteristics	100	180

Targets

26. Sensitive Environments		
26a. Level I Concentrations	b	0
26b. Level II Concentrations	b	0
26c. Potential Environmental Contamination	b	8
26d. Population (lines 26a + 26b + 26c)	b	0
27. Targets (line 26d)	b	0

Environmental Threat Score

28. Environmental Threat Score [(lines 22 x 25 x 27)/82500]	60	0.00
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SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORE - WATERSHED

29. Watershed Score (Lines 13 + 21 + 28)	100	9.39
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SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORE - WATERSHED

30. Watershed Score (Sgw) (Highest of all watersheds)	100	9.39
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- a. Maximum value applies to waste characteristics category
 o. Maximum value not applicable
 c. Do not round to nearest integer

Site Name:

James River Norwalk Site

Location:

Coweta County, Georgia

SOIL EXPOSURE PATHWAY SCORESHEET

RESIDENT POPULATION THREAT

Likelihood of Exposure

1. Likelihood of Exposure

Maximum Value	Assigned Value
550	550

Waste Characteristics

2. Toxicity
3. Hazardous Waste Quantity
4. Waste Characteristics

a	10,000
a	10
100	18

Targets

5. Resident Individual
6. Resident Population
6a. Level I Concentrations
6b. Level II Concentrations
6c. Resident Population (lines 6a + 6b)
7. Workers
8. Resources
9. Terrestrial Sensitive Environments
10. Targets (lines 5 + 6c + 7 + 8 + 9)

50	0
b	
b	
b	
15	5
5	0
c	0
b	5

Resident Population Threat Score

11. Resident Population Threat
[(lines 1 x 4 x 10)/82500]

b	0.60
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a Maximum value applies to waste characteristics category

b maximum value not applicable

c no specific maximum value applies to factor. however, pathway score based solely on sensitive environments is limited to a max of 00.

Site Name:

James River Norwalk Site

Location:

Coweta County, Georgia

**SOIL EXPOSURE PATHWAY SCORESHEET
(continued)**

NEARBY POPULATION THREAT

Likelihood of Exposure

	Maximum Value	Assigned Value
12. Attractiveness/Accessibility	100	10
13. Area of Contamination	100	20
14. Likelihood of Exposure	500	5

Waste Characteristics

15. Toxicity	a	10,000
16. Hazardous Waste Quantity	a	10
17. Waste Characteristics	100	18

Targets

18. Nearby Individual	1	1
19. Population Within One Mile	b	2
20. Targets (lines 18 + 19)	b	3

Nearby Population Threat Score

21. Nearby Population Threat [(lines 14 x 17 x 20)/82500]	b	0.003
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SOIL EXPOSURE PATHWAY SCORE

22. Soil Exposure Pathway Score (Ssoil) (Lines 11 + 21)	100	0.60
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a Maximum value applies to waste characteristics category

b maximum value not applicable

c no specific maximum value applies to factor. however, pathway score based solely on sensitive environments is limited to a max of 0.60.

Site Name:
Location:

James River Norwalk Site
Coweta County, Georgia

AIR MIGRATION PATHWAY SCORESHEET

<u>Likelihood of Release</u>	<u>Maximum Value</u>	<u>Assigned Value</u>
1. Observed Release	550	0
2. Potential to Release		
2a. Gas Potential to Release	500	500
2b. Particulate Potential to Release	500	
2c. Potential to Release	500	
3. Likelihood of Release (higher of lines 1 and 2c.)	a	500

Waste Characteristics

4. Toxicity/Mobility	a	1
5. Hazardous Waste Quantity	a	22
6. Waste Characteristics	100	10

Targets

7. Nearest Individual	50	20
8. Population		
8a. Level I Concentrations	b	
8b. Level II Concentrations	b	
8c. Potential Contamination	b	14
8d. Population (lines 8a + 8b + 8c)	b	14
9. Resources	5	0
10. Sensitive Environments		
10a. Actual Contamination	c	0
10b. Potential Contamination	c	0.023
10c. Sensitive Environments (lines 10a + 10b)	c	0.023
11. Targets (lines 7 + 8d + 9 + 10c)	b	34.023

Air Migration Pathway Score

12. Pathway Score (Sair) [(lines 3 x 6 x 11)/82500]	100	2.06
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- a Maximum value applies to waste characteristics category
o maximum value not applicable
c No specific maximum value applies to factor. However, pathway score based solely on sensitive environments is limited to a max of 10.

HRS Scoresheets

Site Name: James River Norwalk Site
Location: Coweta County, Georgia

SITE SCORING SUMMARY

Groundwater Migration Pathway Score	1.47
Surface Water Migration Pathway Score	9.39
Soil Exposure Migration Pathway Score	0.60
Air Migration Pathway Score	2.06
Overall Site Score	4.87

CONFIDENTIAL

SITE INSPECTION WORKSHEETS

CERCLIS IDENTIFICATION NUMBER

GAD0039/3159

SITE LOCATION			
SITE NAME: LEGAL, COMMON, OR DESCRIPTIVE NAME OF SITE JAMES RIVER -			
STREET ADDRESS, ROUTE, OR SPECIFIC LOCATION IDENTIFIER SPRAYBERRY ROAD			
CITY NEWNAN	STATE GA	ZIP CODE 30264	TELEPHONE ()
COORDINATES: LATITUDE and LONGITUDE LAT 33° 23' 30" LONG 84° 47' 30"		TOWNSHIP, RANGE, AND SECTION —	

OWNER/OPERATOR IDENTIFICATION					
OWNER JAMES RIVER CORP			OPERATOR JAMES RIVER CORP		
OWNER ADDRESS P.O. BOX 2260			OPERATOR ADDRESS SPRAYBERRY ROAD, P.O. BOX 489		
CITY GREENWICH			CITY NEWNAN		
STATE CT	ZIP CODE 06830	TELEPHONE (203) 552-2181	STATE GA	ZIP CODE 30264	TELEPHONE ()

SITE EVALUATION		
AGENCY/ORGANIZATION BLACK & VEATCH WASTE SCIENCE, INC		
INVESTIGATOR ROBERT D BROCKHAUS		
CONTACT VICTOR BLIX		
ADDRESS 400 NORTH RIDGE RD, SUITE 350		
CITY ATLANTA	STATE GA	ZIP CODE 30350
TELEPHONE (404) 594-2500		

CONFIDENTIAL

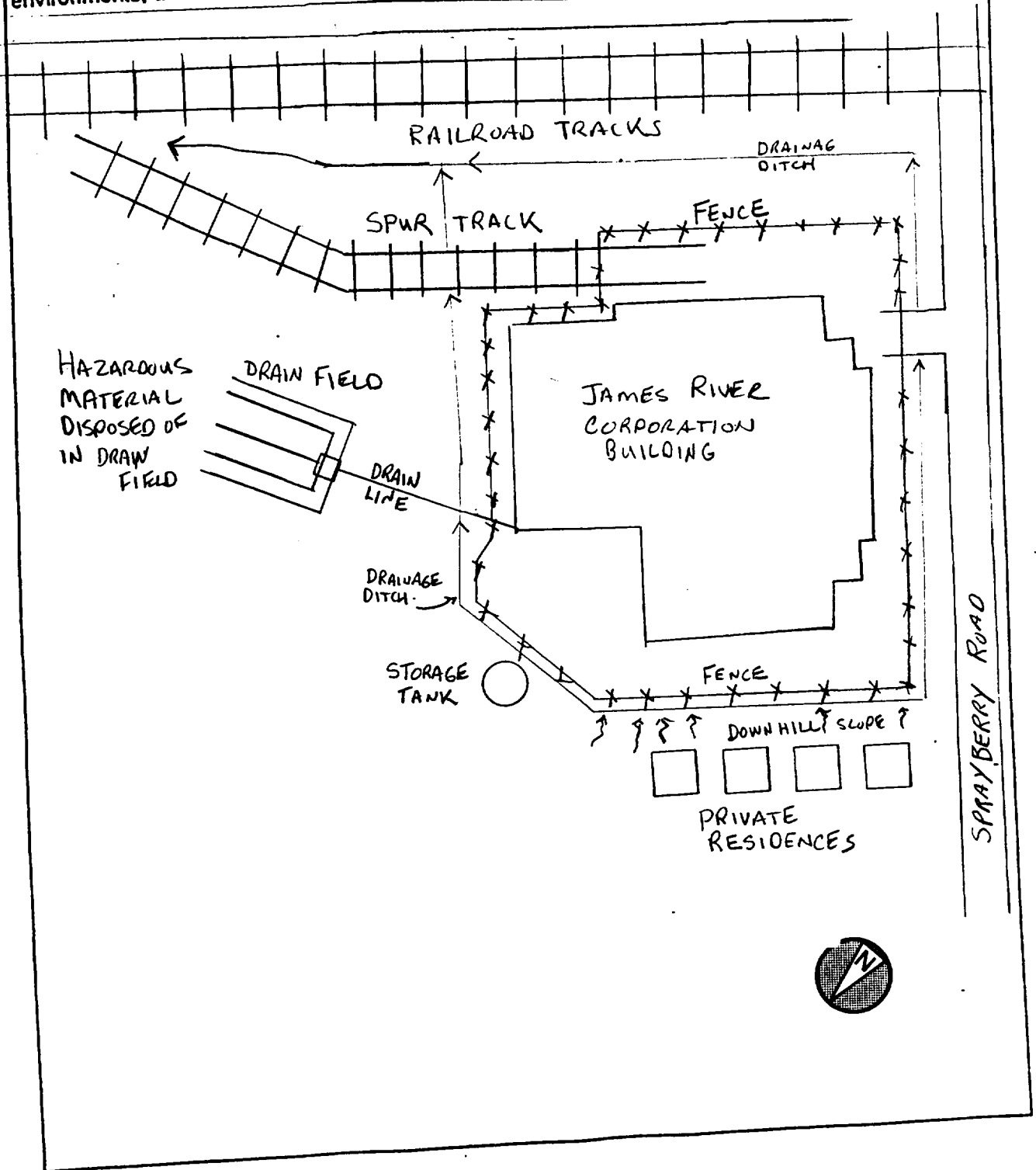
GENERAL INFORMATION

Site Description and Operational History: Provide a brief description of the site and its operational history. State the site name, owner, operator, type of facility and operations, size of property, active or inactive status, and years of waste generation. Summarize waste treatment, storage, or disposal activities that have or may have occurred at the site; note whether these activities are documented or alleged. Identify all source types and prior spills, floods, or fires. Summarize highlights of the PA and other investigations. Cite references.

THE JAMES RIVER NORWALK SITE IS LOCATED WITHIN THE CITY LIMITS OF NEWNAN, GEORGIA, IN CENTRAL COWETA COUNTY (REF 1). THE OFF-SET PLATE MAKING PLANT DISPOSED OF WASTE IN THE PLANT'S DRAINFIELD FROM MARCH 1975 - JUNE 1980 (REF 2, p. 1). THE DRAINFIELD COVERS APPROXIMATELY 5,200 SQUARE FEET AND IS COVERED WITH 18 INCHES OF BACKFILL MATERIAL. THE TOTAL AMOUNT OF WASTE MATERIAL DISPOSED OF IS ESTIMATED AT 21,600 GALLONS (REF 2, p. 1) AND WAS REPORTED TO CONTAIN CYANIDE, ARSENIC, MERCURY, CHROMIUM, COPPER, LEAD AND PHENOLS. NO SAMPLING RESULTS OR SITE SCREENING REPORTS WERE IN THE PROJECT FILE (REF 2, p. 1)

GENERAL INFORMATION (continued)

Site Sketch: Provide a sketch of the site. Indicate all pertinent features of the site and nearby environments including sources of wastes, areas of visible and buried wastes, buildings, residences, access roads, parking areas, fences, fields, drainage patterns, water bodies, vegetation, wells, sensitive environments, and other features.



GENERAL INFORMATION (continued)

Source Descriptions: Describe all sources at the site. Identify source type and relate to waste disposal operations. Provide source dimensions and the best available waste quantity information. Describe the condition of sources and all containment structures. Cite references.

SOURCE TYPES

Landfill: A man-made (by excavation or construction) or natural hole in the ground into which wastes have come to be disposed by backfilling, or by contemporaneous soil deposition with waste disposal.

Surface Impoundment: A natural topographic depression, man-made excavation, or diked area, primarily formed from earthen materials (lined or unlined) and designed to hold an accumulation of liquid wastes, wastes containing free liquids, or sludges not backfilled or otherwise covered; depression may be wet with exposed liquid or dry if deposited liquid has evaporated, volatilized or leached; structures that may be described as lagoon, pond, aeration pit, settling pond, tailings pond, sludge pit; also a surface impoundment that has been covered with soil after the final deposition of waste materials (i.e., buried or backfilled).

Drum: A portable container designed to hold a standard 55-gallon volume of wastes.

Tank and Non-Drum Container: Any device, other than a drum, designed to contain an accumulation of waste that provides structural support and is constructed primarily of fabricated materials (such as wood, concrete, steel, or plastic); any portable or mobile device in which waste is stored or otherwise handled.

Contaminated Soil: An area or volume of soil onto which hazardous substances have been spilled, spread, disposed, or deposited.

Pile: Any non-containerized accumulation above the ground surface of solid, non-flowing wastes; includes open dumps. Some types of waste piles are:

- **Chemical Waste Pile:** A pile consisting primarily of discarded chemical products, by-products, radioactive wastes, or used or unused feedstocks.
- **Scrap Metal or Junk Pile:** A pile consisting primarily of scrap metal or discarded durable goods (such as appliances, automobiles, auto parts, batteries, etc.) composed of materials containing hazardous substances.
- **Tailings Pile:** A pile consisting primarily of any combination of overburden from a mining operation and tailings from a mineral mining, beneficiation, or processing operation.
- **Trash Pile:** A pile consisting primarily of paper, garbage, or discarded non-durable goods containing hazardous substances.

Land Treatment: Landfarming or other method of waste management in which liquid wastes or sludges are spread over land and tilled, or liquids are injected at shallow depths into soils.

Other: Sources not in categories listed above.

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GENERAL INFORMATION (continued)

Source Description: Include description of containment per pathway for ground water (see HRS Table 3-2), surface water (see HRS Table 4-2), and air (see HRS Tables 6-3 and 6-9).

THE SOURCE IS AN ON-SITE DRAINFIELD USED TO DISPOSE OF WASTE AND WASTEWATER

FROM 1975 THROUGH JUNE 1980. THE DRAINFIELD IS A FIVE-LEG, CLASS A SAND

FILTER SYSTEM WITH DIMENSIONS OF APPROXIMATELY 100 FT BY 58 FT. (REF 2)

IT IS ESTIMATED THAT 15 GALLONS OF WASTE WAS DISPOSED OF IN THE

SYSTEM PER DAY, OR APPROXIMATELY 21,600 GALLONS (REF 2, p. 1)

Hazardous Waste Quantity (HWQ) Calculation: SI Tables 1 and 2 (See HRS Tables 2-5, 2-6, and 5-2).

From

From Table 2-6

OR CLASSIFY USING AREA OF DRAINFIELD AT 5200 FT²

$$\frac{5200 \text{ FT}^2}{34,000} = 0.15 \Rightarrow 1$$

FROM SECTION 2.4.2.2, IF NO REMOVAL ACTION,
USE A VALUE FROM 2-6 OR 10, WHICHEVER
IS GREATER. USE 10

Attach additional pages, if necessary

HWQ = 10

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SI TABLE 1: HAZARDOUS WASTE QUANTITY (HWQ) SCORES FOR SINGLE SOURCE SITES AND FORMULAS FOR MULTIPLE SOURCE SITES

		Single Source Sites (assigned HWQ scores)	
(Column 1)	(Column 2)	(Column 3)	(Column 4)
TIER	Source Type	HWQ = 10	HWQ = 100
A Hazardous Constituent Quantity	N/A	HWQ = 1 if Hazardous Constituent Quantity data are complete HWQ = 10 if Hazardous Constituent Quantity data are not complete	>100 to 10,000 lbs
B Hazardous Wastestream Quantity	N/A	≤ 500,000 lbs	>500,000 to 50 million lbs
C Volume	Landfill	≤ 6.75 million ft ³ ≤ 250,000 yd ³	>6.75 million to 675 million ft ³ >250,000 to 25 million yd ³
	Surface impoundment	≤ 6,750 ft ³ ≤ 250 yd ³	>6,750 to 675,000 ft ³ >250 to 25,000 yd ³
	Drums	≤ 1,000 drums	>1,000 to 100,000 drums
	Tanks and non-drum containers	≤ 50,000 gallons	>50,000 to 5 million gallons
	Contaminated soil	≤ 6.75 million ft ³ ≤ 250,000 yd ³	>6.75 million to 675 million ft ³ >250,000 to 25 million yd ³
	Pile	≤ 6,750 ft ³ ≤ 250 yd ³	>6,750 to 675,000 ft ³ >250 to 25,000 yd ³
D Area	Other	≤ 6,750 ft ³ ≤ 250 yd ³	>6,750 to 675,000 ft ³ >250 to 25,000 yd ³
	Landfill	≤ 340,000 ft ² ≤ 7.8 acres	>340,000 to 34 million ft ² >7.8 to 780 acres
	Surface impoundment	≤ 1,300 ft ² ≤ 0.029 acres	>1,300 to 130,000 ft ² >0.029 to 2.9 acres
	Contaminated soil	≤ 3.4 million ft ² ≤ 78 acres	> 3.4 million to 340 million ft ² > 78 to 7,800 acres
	Pile	≤ 1,300 ft ² ≤ 0.029 acres	>1,300 to 130,000 ft ² >0.029 to 2.9 acres
	Land treatment	≤ 27,000 ft ² ≤ 0.62 acres	>27,000 to 2.7 million ft ² >0.62 to 62 acres

1 ton = 2,000 pounds = 1 cubic yard = 4 drums = 200 gallons

TABLE 1 (CONTINUED)

Single Source Sites (assigned HWQ scores)		Multiple Source Sites		
(Column 5)	(Column 6)	(Column 7)	(Column 2)	(Column 1)
HWQ = 10,000	HWQ = 1,000,000	Divisors for Assigning Source WQ Values	Source Type	TIER
>10,000 to 1 million lbs	> 1 million lbs	lbs ÷ 1	N/A	A Hazardous Constituent Quantity
>50 million to 5 billion lbs	> 5 billion lbs	lbs ÷ 5,000	N/A	B Hazardous Wastestream Quantity
>675 million to 67.5 billion ft ³ >25 million to 2.5 billion yd ³	> 67.5 billion ft ³ > 2.5 billion yd ³	ft ³ ÷ 67,500 yd ³ ÷ 2,500	Landfill	C Volume
>675,000 to 67.5 million ft ³ >25,000 to 2.5 million yd ³	> 67.5 million ft ³ > 2.5 million yd ³	ft ³ ÷ 67.5 yd ³ ÷ 2.5	Surface Impoundment	
>100,000 to 10 million drums	> 10 million drums	drums ÷ 10	Drums	
>5 million to 500 million gallons	> 500 million gallons	gallons ÷ 500	Tanks and non-drum containers	
>675 million to 67.5 billion ft ³ >25 million to 2.5 billion yd ³	> 67.5 billion ft ³ > 2.5 billion yd ³	ft ³ ÷ 67,500 yd ³ ÷ 2,500	Contaminated Soil	
>675,000 to 67.5 million ft ³ >25,000 to 2.5 million yd ³	> 67.5 million ft ³ > 2.5 million yd ³	ft ³ ÷ 67.5 yd ³ ÷ 2.5	Pile	
>675,000 to 67.5 million ft ³ >25,000 to 2.5 million yd ³	> 67.5 million ft ³ > 2.5 million yd ³	ft ³ ÷ 67.5 yd ³ ÷ 2.5	Other	D Area
>34 million to 3.4 billion ft ² >780 to 78,000 acres	> 3.4 billion ft ² >78,000 acres	ft ² ÷ 3,400 acres ÷ 0.078	Landfill	
>130,000 to 13 million ft ² >2.9 to 290 acres	> 13 million ft ² > 290 acres	ft ² ÷ 13 acres ÷ 0.00029	Surface Impoundment	
> 340 million to 34 billion ft ² > 7,800 to 780,000 acres	> 34 billion ft ² > 780,000 acres	ft ² ÷ 34,000 acres ÷ 0.78	Contaminated Soil	
> 130,000 to 13 million ft ² > 2.9 to 290 acres	> 13 million ft ² > 290 acres	ft ² ÷ 13 acres ÷ 0.00029	Pile	
>2.7 million to 270 million ft ² >62 to 6,200 acres	> 270 million ft ² > 6,200 acres	ft ² ÷ 270 acres ÷ 0.0062	Land Treatment	

1 ton = 2,000 pounds = 1 cubic yard = 4 drums = 200 gallons

HAZARDOUS WASTE QUANTITY (HWQ) CALCULATION

For each migration pathway, evaluate HWQ associated with sources that are available (i.e., incompletely contained) to migrate to that pathway. (Note: If *Actual Contamination Targets* exist for ground water, surface water, or air migration pathways, assign the calculated HWQ score or 100, whichever is greater, as the HWQ score for that pathway.) For each source, evaluate HWQ for one or more of the four tiers (SI Table 1; HRS Table 2-5) for which data exist: constituent quantity, wastestream quantity, source volume, and source area. Select the tier that gives the highest value as the source HWQ. Select the source volume HWQ rather than source area HWQ if data for both tiers are available.

Column 1 of SI Table 1 indicates the quantity tier. Column 2 lists source types for the four tiers. Columns 3, 4, 5, and 6 provide ranges of waste amount for sites with only one source, corresponding to HWQ scores at the tops of the columns. Column 7 provides formulas to obtain source waste quantity values at sites with multiple sources.

1. Identify each source type.
2. Examine all waste quantity data available for each source. Record constituent quantity and waste stream mass or volume. Record dimensions of each source.
3. Convert source measurements to appropriate units for each tier to be evaluated.
4. For each source, use the formulas in the last column of SI Table 1 to determine the waste quantity value for each tier that can be evaluated. Use the waste quantity value obtained from the highest tier as the quantity value for the source.
5. Sum the values assigned to each source to determine the total site waste quantity.
6. Assign HWQ score from SI Table 2 (HRS Table 2-6).

Note these exceptions to evaluate soil exposure pathway HWQ (see HRS Table 5-2):

- The divisor for the area (square feet) of a landfill is 34,000.
- The divisor for the area (square feet) of a pile is 34.
- Wet surface impoundments and tanks and non-drum containers are the only sources for which volume measurements are evaluated for the soil exposure pathway.

SI TABLE 2: HWQ SCORES FOR SITES

Site WQ Total	HWQ Score
0	0
1 ^a to 100	1 ^b
> 100 to 10,000	100
> 10,000 to 1 million	10,000
> 1 million	1,000,000

^a If the WQ total is between 0 and 1, round it to 1.

^b If the hazardous constituent quantity data are not complete, assign the score of 10.

SI TABLE 3: WASTE CHARACTERIZATION WORKSHEET

Site Name: JAMES RIVER - NORWACK

References REF. 2 p.1;
SCDM JUNE '94

Sources:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____

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SOURCE	HAZARDOUS SUBSTANCE	TOXICITY	GROUND WATER PATHWAY		SURFACE WATER PATHWAY												AIR	
					river <u>X</u> or lake <u>—</u> ; fresh <u>X</u> or salt <u>—</u>								GROUND WATER TO SURFACE WATER					
			GW Mobility (HRS Table 3-8)	Tox/Mobility Value (HRS Table 3-9)	Per (HRS Tables 4-10 and 4-11)	Tox/Per Value (HRS Table 4-12)	Fish/Env. Blocc Pol. (HRS Table 4-15)	Tox/Per/Blocc Value (HRS Table 4-16)	Ecotox (HRS Table 4-19)	Ecotox/Per (HRS Table 4-20)	Ecotox/Per/Blocc Value (HRS Table 4-21)	Tox/Mob/Per Value (HRS Table 4-26)	Tox/Mob/Per/Blocc Value (HRS Table 4-28)	Ecotox/Mob/Per Value (HRS Table 4-29)	Ecotox/Mob/Per/Blocc Value (HRS Table 4-30)	Pathway	Toxicity mobility	
✓	HEXAVALENT CHROMIUM	10,000	0.01	100	1.0	10,000	5.0 5.0	50,000	100	100	500						Gas (Part)	0.8
✓	COPPER	—	0.01	—	1.0	—	50 50,000	—	100	100	5x10 ⁶							0.8
✓	LEAD	10,000	0.01	100	1.0	10,000	50 50,000	500,000	1000	1000	5x10 ⁶							0.8
✓	ARSENIC	10,000	0.01	100	1.0	10,000	50 50,000	50,000	10	10	500							0.8
	ZINC	10	0.01	0.10	1.0	10	500 500	5,000	10	10	5000							RE-4
	STRONTIUM	1.0	—	—	1.0	1.0	0.5 0.5	0.50	—	—	—							RE-5
	CYANIDE	100	—	—	0.40	40	0.5 0.5	20	1000	400	200							RE-
	MERCURY	10,000	1.0	10,000	1.0	10,000	5,000 5,000	5x10 ³	10,000	10,000	5x10 ⁸							1000 0.8
	PHENOL	1.0	1.0	1.0	1.0	1.0	5 5	5	10,000	10,000	5x10 ⁴							

↑ liquid X or solid —
nonkarst X or
karst —

(8x10⁻⁵) tox
=

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Ground Water Observed Release Substances Summary Table

On SI Table 4, list the hazardous substances associated with the site detected in ground water samples for that aquifer. Include only those substances directly observed or with concentrations significantly greater than background levels. Obtain toxicity values from the Superfund Chemical Data Matrix (SCDM). Assign mobility a value of 1 for all observed release substances regardless of the aquifer being evaluated. For each substance, multiply the toxicity by the mobility to obtain the toxicity/mobility factor value; enter the highest toxicity/mobility value for the aquifer in the space provided.

Ground Water Actual Contamination Targets Summary Table

If there is an observed release at a drinking water well, enter each hazardous substance meeting the requirements for an observed release by well and sample ID on SI Table 5 and record the detected concentration. Obtain benchmark, cancer risk, and reference dose concentrations from SCDM. For MCL and MCLG benchmarks, determine the highest percentage of benchmark obtained for any substance. For cancer risk and reference dose, sum the percentages for the substances listed. If benchmark, cancer risk, or reference dose concentrations are not available for a particular substance, enter N/A for the percentage. If the highest benchmark percentage or the percentage sum calculated for cancer risk or reference dose equals or exceeds 100%, evaluate the population using the well as a Level I target. If these percentages are less than 100% or all are N/A, evaluate the population using the well as a Level II target for that aquifer.

SI TABLE 4: GROUND WATER OBSERVED RELEASE SUBSTANCES (BY AQUIFER)

Sample ID	Hazardous Substance	Bckgrd. Conc.	Toxicity/Mobility	References
Highest Toxicity/Mobility				

NO GROUNDWATER DATA

SI TABLE 5: GROUND WATER ACTUAL CONTAMINATION TARGETS

Well ID: _____ Level I _____ Level II _____ Population Served _____ References _____

Sample ID	Hazardous Substance	Conc. (µg/L)	Benchmark Conc. (MCL or MCLG)	% of Benchmark	Cancer Risk Conc.	% of Cancer Risk Conc.	RID	% of RID
Highest Percent					Sum of Percents		Sum of Percents	

Well ID: _____ Level I _____ Level II _____ Population Served _____ References _____

Sample ID	Hazardous Substance	Conc. (µg/L)	Benchmark Conc. (MCL or MCLG)	% of Benchmark	Cancer Risk Conc.	% of Cancer Risk Conc.	RID	% of RID
Highest Percent					Sum of Percents		Sum of Percents	

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SI TABLE 4: GROUNDWATER OBSERVED RELEASE SUBSTANCES

NO GROUNDWATER DATA

SAMPLE ID NO.	HAZARDOUS SUBSTANCE	CONCEN- TRATION	BACKGROUND SAMPLE ID NO.	BACKGROUND CONCENTRATION	TOXICITY/ MOBILITY	REFERENCES

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GROUND WATER PATHWAY GROUND WATER USE DESCRIPTION

Describe Ground Water Use within 4 Miles of the Site:
Describe generalized stratigraphy, aquifers, municipal and private wells

THE AQUIFER OF CONCERN IS THE UNCONFINED RESIDUAL SOIL/
CRYSTALLINE ROCK AQUIFER (REF 11). GROUNDWATER STORAGE
OCCURS IN UNCONSOLIDATED MATERIAL OVERLYING THE CRYSTALLINE
ROCK AND IN JOINTS AND FRACTURES IN THE ROCK. DRINKING WATER
IS SUPPLIED TO SOME RESIDENTS BY NEWNAN/COWETA COUNTY
PUBLIC UTILITIES. THE SOURCE OF THE WATER IS FROM SURFACE
WATER. APPROXIMATELY 25% OF COUNTY RESIDENTS OBTAIN
POTABLE WATER FROM WELLS (REF 9, 10). IT IS ILLEGAL FOR
RESIDENTS OF NEWNAN TO DRILL NEW WELLS WITHIN THE
CITY LIMITS (REF. 8), NEAREST WELL IS APPROXIMATELY
1 MILE TO THE NORTH (REF 12, pp. 98-105)

Show Calculations of Ground Water Drinking Water Populations for each Aquifer:
Provide apportionment calculations for blended supply systems.
County average number of persons per household: 2.82 Reference 1990 CENSUS, REF 1
REF 1

HOUSE COUNT OUTSIDE OF NEWNAN UTILITIES DISTRICT

<u>DISTANCE</u>	<u>HOUSE COUNT</u>	<u>25%</u>	<u>POPULATION</u>
0 - 1/4	INSIDE	—	—
1/4 - 1/2	CITY	—	—
1/2 - 1	LIMITS	—	—
1 - 2	13	3.25	9.2
2 - 3	256	64.0	180.5
3 - 4	775	193.75	546.4
	861	215.25	607.0
			<u>1,343</u>

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GROUND WATER PATHWAY WORKSHEET

LIKELIHOOD OF RELEASE	Score	Data Type	Refs
1. OBSERVED RELEASE: If sampling data or direct observation support a release to the aquifer, assign a score of 550. Record observed release substances on SI Table 4.	NO DATA		
2. POTENTIAL TO RELEASE: Depth to aquifer: _____ feet. If sampling data do not support a release to the aquifer, and the site is in karst terrain or the depth to aquifer is 70 feet or less, assign a score of 500; otherwise, assign a score of 340. Optionally, evaluate potential to release according to HRS Section 3.	240		
LR = 240			

TARGETS

<p>Are any wells part of a blended system? Yes _____ No <u>X</u></p> <p>If yes, attach a page to show apportionment calculations.</p> <p>3. ACTUAL CONTAMINATION TARGETS: If analytical evidence indicates that any target drinking water well for the aquifer has been exposed to a hazardous substance from the site, evaluate the factor score for the number of people served (SI Table 5).</p> <p>Level I: _____ people x 10 = _____</p> <p>Level II: _____ people x 1 = _____ Total = _____</p>	NO DATA		
4. POTENTIAL CONTAMINATION TARGETS: Determine the number of people served by drinking water wells for the aquifer or overlying aquifers that are not exposed to a hazardous substance from the site; record the population for each distance category in SI Table 6a or 6b. Sum the population values and multiply by 0.1.	14		REF 1, 7
5. NEAREST WELL: Assign a score of 50 for any Level I Actual Contamination Targets for the aquifer or overlying aquifer. Assign a score of 45 if there are Level II targets but no Level I targets. If no Actual Contamination Targets exist, assign the Nearest Well score from SI Table 6a or 6b. If no drinking water wells exist within 4 miles, assign 0.	9		REF 12
6. WELLHEAD PROTECTION AREA (WHPA): If any source lies within or above a WHPA for the aquifer, or if a ground water observed release has occurred within a WHPA, assign a score of 20; assign 5 if neither condition applies but a WHPA is within 4 miles; otherwise assign 0.	0		REF 11
<p>7. RESOURCES: Assign a score of 5 if one or more ground water resource applies; assign 0 if none applies.</p> <ul style="list-style-type: none"> • Irrigation (5 acre minimum) of commercial food crops or commercial forage crops • Watering of commercial livestock • Ingredient in commercial food preparation • Supply for commercial aquaculture • Supply for a major or designated water recreation area, excluding drinking water use 	<p>CONSERVATIVE ASSUMPTION</p> <p>5</p>		REF 11
Sum of Targets T=		28	

TABLE 3-1
GROUND WATER MIGRATION PATHWAY SCORESHEET

Factor Categories and Factors

<u>Likelihood of Release to an Aquifer</u>	<u>Maximum Value</u>	<u>Value Assigned</u>
1. Observed Release	550	<u>0</u>
2. Potential to Release		
2a. Containment	10	<u>10</u>
2b. Net Precipitation	10	<u>6</u>
2c. Depth to Aquifer	5	<u>3</u>
2d. Travel Time	35	<u>15</u>
2e. Potential to Release [lines 2a x (2b + 2c + 2d)]	500	<u>240</u>
3. Likelihood of Release (higher of lines 1 and 2e)	550	<u>240</u>

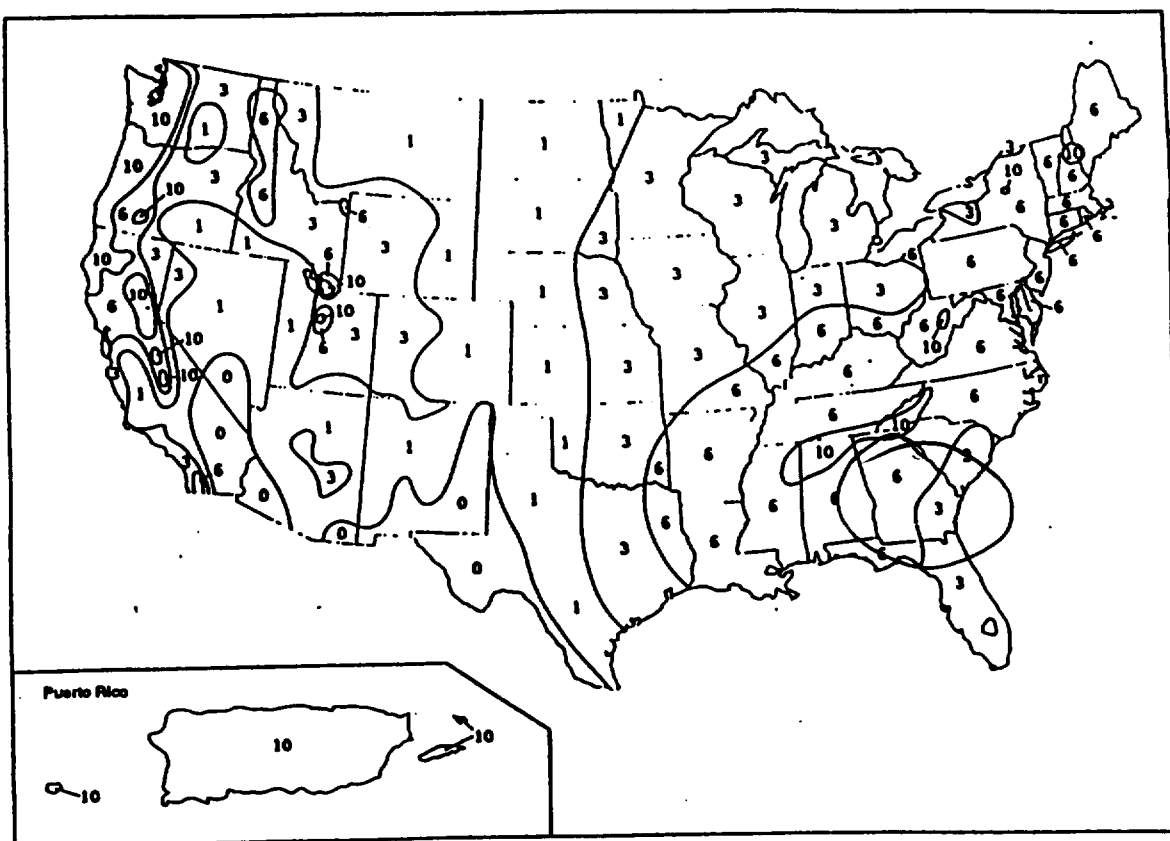


FIGURE 3-2
NET PRECIPITATION FACTOR VALUES

TABLE 3-2
CONTAINMENT FACTOR VALUES FOR GROUND WATER MIGRATION PATHWAY

All Sources (except surface impoundments, land treatment, containers, and tanks)

Assigned
Value

Evidence of hazardous substance migration from source area (i.e., source area includes source and any associated containment structures).

10 NO DATA

No liner.

10

No evidence of hazardous substance migration from source area, a liner, and:

- (a) None of the following present: (1) maintained engineered cover, or (2) functioning and maintained run-on control system and runoff management system, or (3) functioning leachate collection and removal system immediately above liner. 10
- (b) Any one of the three items in (a) present. 9
- (c) Any two of the items in (a) present. 7
- (d) All three items in (a) present plus a functioning ground water monitoring system. 5
- (e) All items in (d) present, plus no bulk or non-containerized liquids nor materials containing free liquids deposited in source area. 3

No evidence of hazardous substance migration from source area, double liner with functioning leachate collection and removal system above and between liners, functioning ground water monitoring system, and:

- (f) Only one of the following deficiencies present in containment: (1) bulk or noncontainerized liquids or materials containing free liquids deposited in source area, or (2) no or nonfunctioning or nonmaintained run-on control system and runoff management system, or (3) no or nonmaintained engineered cover. 3

TABLE 3-2 (Continued)

All Sources (Concluded)Assigned
Value

(g) None of the deficiencies in (f) present.

0

Source area inside or under maintained intact structure that provides protection from precipitation so that neither runoff nor leachate is generated, liquids or materials containing free liquids not deposited in source area, and functioning and maintained run-on control present.

0

Surface Impoundment

No evidence of hazardous substance migration from surface impoundment with free liquids present with either no diking, unsound diking, or diking that is not regularly inspected and maintained. 10

No evidence of hazardous substance migration from surface impoundment, free liquids present, sound diking that is regularly inspected and maintained, adequate freeboard, and 10

(a) No liner. 9

(b) Liner. 7

(c) Liner with functioning leachate collection and removal system below liner. 5

(d) Double liner with functioning leachate collection and removal system between liners. 3

No evidence of hazardous substance migration from surface impoundment and all free liquids eliminated at closure (either by removal of liquids or solidification of remaining wastes and waste residues).

Evaluate using
All Sources
criteria (with no
bulk or free
liquids
deposited).

TABLE 3-5
DEPTH TO AQUIFER FACTOR VALUES

Depth To Aquifer ^a (feet)	Assigned Value
Less than or equal to 25	5
Greater than 25 to 250	3
Greater than 250	1

^aUse depth of all layers between the hazardous substances and aquifer. Assign a thickness of 0 feet to any karst aquifer that underlies any portion of the sources at the site.

TABLE 3-6
HYDRAULIC CONDUCTIVITY OF GEOLOGIC MATERIALS

Type of Material	Assigned Hydraulic Conductivity ^a (cm/sec)
Clay; low permeability till (compact unfactured till); shale; unfactured metamorphic and igneous rocks	10 ⁻⁸
Silt; loesses; silty clays; sediments that are predominantly silts; moderately permeable till (fine-grained, unconsolidated till, or compact till with some fractures); low permeability limestones and dolomites (no karst); low permeability sandstone; low permeability fractured igneous and metamorphic rocks	10 ⁻⁶
Sands; sandy silts; sediments that are predominantly sand; highly permeable till (coarse-grained, unconsolidated or compact and highly fractured); peat; moderately permeable limestones and dolomites (no karst); moderately permeable sandstone; moderately permeable fractured igneous and metamorphic rocks	10 ⁻⁴
Gravel; clean sand; highly permeable fractured igneous and metamorphic rocks; permeable basalt; karst limestones and dolomites	10 ⁻²

^aDo not round to nearest integer.

TABLE 3-7
TRAVEL TIME FACTOR VALUES^a

Hydraulic Conductivity (cm/sec)	Thickness of Lowest Hydraulic Conductivity Layer(s) ^b (feet)			
	Greater than 3 to 5	Greater than 5 to 100	Greater than 100 to 500	Greater than 500
Greater than or equal to 10 ⁻³	35	35	35	25
Less than 10 ⁻³ to 10 ⁻⁵	35	25	15	15
Less than 10 ⁻⁵ to 10 ⁻⁷	15	15	5	5
Less than 10 ⁻⁷	5	5	1	1

^aIf depth to aquifer is 10 feet or less or if, for the interval being evaluated, all layers that underlie a portion of the sources at the site are karst, assign a value of 35.

^bConsider only layers at least 3 feet thick. Do not consider layers or portions of layers within the first 10 feet of the depth to the aquifer.

ACCORDING TO REF

DEPTH TO WATER TABLE
RANGES FROM 5-90 FT
BELOW GROUND SURFACE.

ELEVATION OF SITE; 900-920 FT

DEPTH TO WATER ~ 30 FT

SIMILAR AREA TO ELKS CLUB
WELL. (REF 11)

SI TABLE 6 (From HRS TABLE 3-12): VALUES FOR POTENTIAL CONTAMINATION GROUND WATER TARGET POPULATIONS

SI Table 6a: Other Than Karst Aquifers

Distance from Site	Pop.	Nearest Well (choose highest)	Population Served by Wells within Distance Category												Pop. Value	Rel.
			1 to 10	11 to 30	31 to 100	101 to 300	301 to 1000	1001 to 3000	3001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	1,000,000 to 3,000,000		
0 to $\frac{1}{4}$ mile	0	20	4	17	53	164	522	1,633	5,214	16,325	52,137	163,248	521,360	1,632,455	0	
$>\frac{1}{4}$ to $\frac{1}{2}$ mile	0	18	2	11	33	102	324	1,013	3,233	10,122	32,325	101,213	323,243	1,012,122	0	
$>\frac{1}{2}$ to 1 mile	9.2	9	1	5	17	52	167	523	1,669	5,224	16,684	52,239	166,835	522,385	1	
>1 to 2 miles	180.5	5	0.7	3	10	30	94	294	939	2,939	9,385	29,384	93,845	293,842	30	
>2 to 3 miles	54.4	3	0.5	2	7	21	68	212	678	2,122	6,778	21,222	67,777	212,219	68	
>3 to 4 miles	607	2	0.3	1	4	13	42	131	417	1,306	4,171	13,060	41,709	130,596	42	
Nearest Well =		9													Sum =	
															141	

THE SITE IS LOCATED WITHIN THE CITY OF NEWNAN WATER SERVICE AREA. IT IS ILLEGAL TO DRILL NEW WELLS WITHIN THE AREA.

$$141 \times 0.1 = 14$$

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SI TABLE 6 (From HRS TABLE 3-12): VALUES FOR POTENTIAL CONTAMINATION GROUND WATER
TARGET POPULATIONS (continued)

SI Table 6b: Karst Aquifers

Distance from Site	Pop.	Nearest Well (choose highest)	Population Served by Wells within Distance Category												Pop. Value	Rel.
			1 to 10	11 to 30	31 to 100	101 to 300	301 to 1000	1001 to 3000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	1,000,000 to 3,000,000			
0 to 1/4 mile		20	4	17	53	164	522	1,633	5,214	16,325	52,137	163,246	521,360	1,632,455		
> 1/4 to 1/2 mile		20	2	11	33	102	324	1,013	3,233	10,122	32,325	101,213	323,243	1,012,122		
> 1/2 to 1 mile		20	2	9	26	82	261	817	2,607	8,163	26,068	81,623	260,680	816,227		
> 1 to 2 miles		20	2	9	26	82	261	817	2,607	8,163	26,068	81,623	260,680	816,227		
> 2 to 3 miles		20	2	9	26	82	261	817	2,607	8,163	26,068	81,623	260,680	816,227		
> 3 to 4 miles		20	2	9	26	82	261	817	2,607	8,163	26,068	81,623	260,680	816,227		
Nearest Well =			Sum =													

NO KARST

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GROUND WATER PATHWAY WORKSHEET (concluded)

WASTE CHARACTERISTICS	Score	Data Type	Does not Apply																						
8. If any Actual Contamination Targets exist for the aquifer or overlying aquifers, assign the calculated hazardous waste quantity score or a score of 100, whichever is greater; if no Actual Contamination Targets exist, assign the hazardous waste quantity score calculated for sources available to migrate to ground water.	10																								
9. Assign the highest ground water toxicity/mobility value from SI Table 3 or 4.	19,000																								
10. Multiply the ground water toxicity/mobility and hazardous waste quantity scores. Assign the Waste Characteristics score from the table below: (from HRS Table 2-7) <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <table border="1"> <thead> <tr> <th>Product</th> <th>WC Score</th> </tr> </thead> <tbody> <tr><td>0</td><td>0</td></tr> <tr><td>>0 to <10</td><td>1</td></tr> <tr><td>10 to <100</td><td>2</td></tr> <tr><td>100 to <1,000</td><td>3</td></tr> <tr><td>1,000 to <10,000</td><td>6</td></tr> <tr><td>10,000 to <1E+05</td><td>10</td></tr> <tr style="border: 2px solid black;"><td>1E+05 to <1E+06</td><td>18</td></tr> <tr><td>1E+06 to <1E+07</td><td>32</td></tr> <tr><td>1E+07 to <1E+08</td><td>56</td></tr> <tr><td>1E+08 or greater</td><td>100</td></tr> </tbody> </table> </div>	Product	WC Score	0	0	>0 to <10	1	10 to <100	2	100 to <1,000	3	1,000 to <10,000	6	10,000 to <1E+05	10	1E+05 to <1E+06	18	1E+06 to <1E+07	32	1E+07 to <1E+08	56	1E+08 or greater	100	18		
Product	WC Score																								
0	0																								
>0 to <10	1																								
10 to <100	2																								
100 to <1,000	3																								
1,000 to <10,000	6																								
10,000 to <1E+05	10																								
1E+05 to <1E+06	18																								
1E+06 to <1E+07	32																								
1E+07 to <1E+08	56																								
1E+08 or greater	100																								
WC =		18																							

Multiply LR by T and by WC. Divide the product by 82,500 to obtain the ground water pathway score for each aquifer. Select the highest aquifer score. If the pathway score is greater than 100, assign 100.

GROUND WATER PATHWAY SCORE:

$$\frac{LR \times T \times WC}{82,500}$$

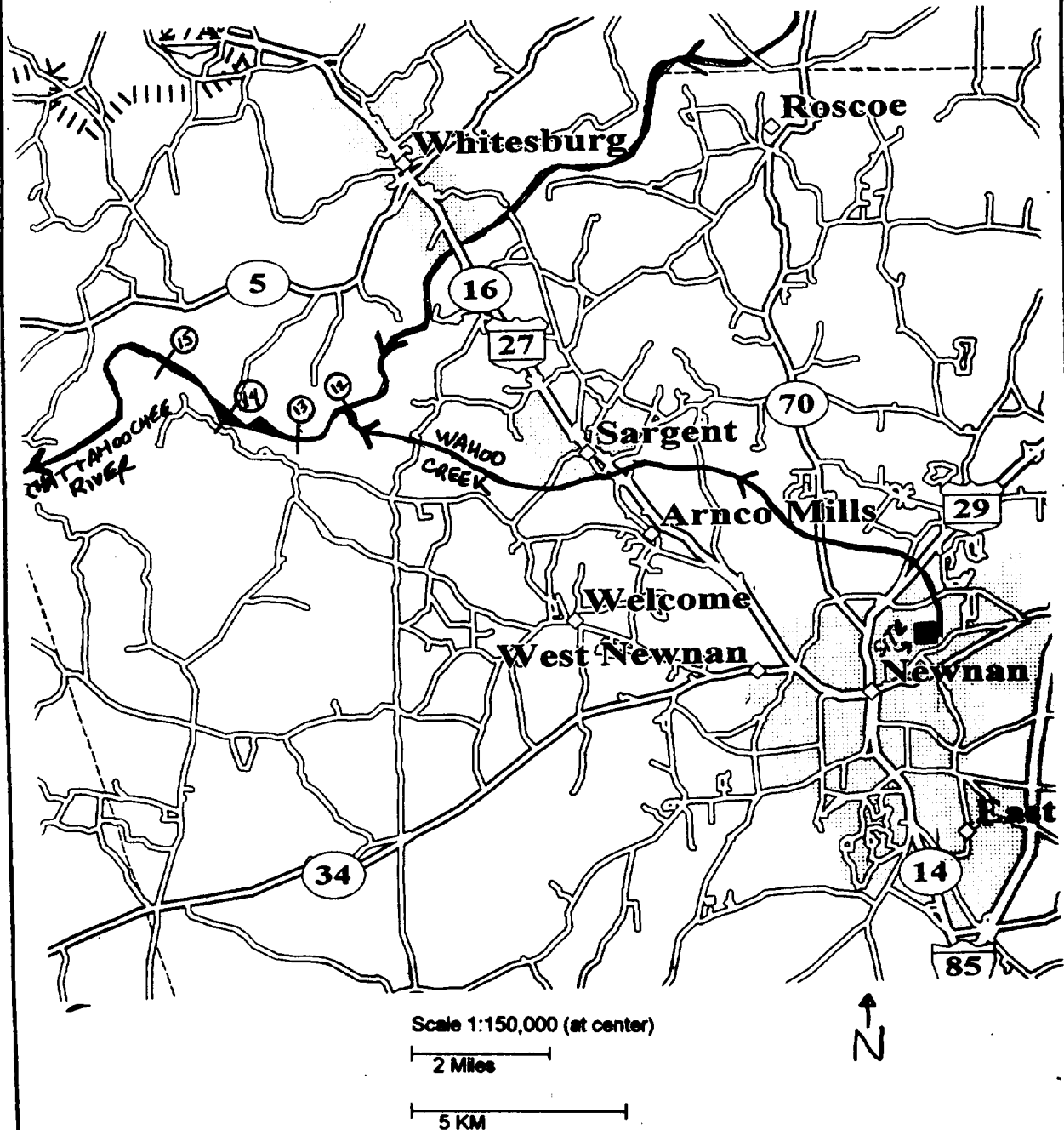
1.47

(Maximum of 100)

$$= \frac{(240)(28)(18)}{82,500} = 1.47$$

SURFACE WATER PATHWAY

Sketch of the Surface Water Migration Route:
 Label all surface water bodies. Include runoff route and drainage direction, probable point of entry, and 15-mile target distance limit. Mark sample locations, intakes, fisheries, and sensitive environments. Indicate flow directions, tidal influence, and rate.



SURFACE WATER PATHWAY

Surface Water Observed Release Substances Summary Table

On SI Table 7, list the hazardous substances detected in surface water samples for the watershed, which can be attributed to the site. Include only those substances in observed releases (direct observation) or with concentration levels significantly above background levels. Obtain toxicity, persistence, bioaccumulation potential, and ecotoxicity values from SCDM. Enter the highest toxicity/persistence, toxicity/persistence/bioaccumulation, and ecotoxicity/persistence/ecobioaccumulation values in the spaces provided.

- TP = Toxicity x Persistence
- TPB = TP x bioaccumulation
- ETPB = EP x bioaccumulation (EP = ecotoxicity x persistence)

Drinking Water Actual Contamination Targets Summary Table

For an observed release at or beyond a drinking water intake, on SI Table 8 enter each hazardous substance by sample ID and the detected concentration. For surface water sediment samples detecting a hazardous substance at or beyond an intake, evaluate the intake as Level II contamination. Obtain benchmark, cancer risk, and reference dose concentrations for each substance from SCDM. For MCL and MCLG benchmarks, determine the highest percentage of benchmark obtained for any substance. For cancer risk and reference dose, sum the percentages of the substances listed. If benchmark, cancer risk, or reference dose concentrations are not available for a particular substance, enter N/A for the percentage. If the highest benchmark percentage or the percentage sum calculated for cancer risk or reference dose equals or exceeds 100%, evaluate the population served by the intake as a Level I target. If the percentages are less than 100% or all are N/A, evaluate the population served by the intake as a Level II target.

NO OBSERVED
RELEASES OR
DATA

Highest Values

Intake ID: _____ Sample Type _____ Level I _____ Level II _____ Population Served _____ References _____

Highest Percent

Intake ID: _____ Sample Type _____ Level I _____ Level II _____ Population Served _____ References _____

Highest Percent

NO OBSERVED RELEASES

SI TABLE 7: SURFACE WATER OBSERVED RELEASE SUBSTANCES

SI TABLE 7: SURFACE WATER OBSERVED RELEASE SUBSTANCES

[illegible]

6-21A

SURFACE WATER PATHWAY LIKELIHOOD OF RELEASE AND DRINKING WATER THREAT WORKSHEET

LIKELIHOOD OF RELEASE- OVERLAND/FLOOD MIGRATION

	Score	Data Type	Refs												
1. OBSERVED RELEASE: If sampling data or direct observation support a release to surface water in the watershed, assign a score of 550. Record observed release substances on SI Table 7.	NO DATA														
2. POTENTIAL TO RELEASE: Distance to surface water: _____ (feet) If sampling data do not support a release to surface water in the watershed, use the table below to assign a score from the table below based on distance to surface water and flood frequency.															
<table border="1"> <tbody> <tr> <td>Distance to surface water <2500 feet</td> <td>500</td> </tr> <tr> <td>Distance to surface water >2500 feet, and:</td> <td></td> </tr> <tr> <td> Site in annual or 10-yr floodplain</td> <td>500</td> </tr> <tr> <td> Site in 100-yr floodplain</td> <td>400</td> </tr> <tr> <td> Site in 500-yr floodplain</td> <td>300</td> </tr> <tr> <td> Site outside 500-yr floodplain</td> <td>100</td> </tr> </tbody> </table>	Distance to surface water <2500 feet	500	Distance to surface water >2500 feet, and:		Site in annual or 10-yr floodplain	500	Site in 100-yr floodplain	400	Site in 500-yr floodplain	300	Site outside 500-yr floodplain	100			
Distance to surface water <2500 feet	500														
Distance to surface water >2500 feet, and:															
Site in annual or 10-yr floodplain	500														
Site in 100-yr floodplain	400														
Site in 500-yr floodplain	300														
Site outside 500-yr floodplain	100														
Optionally, evaluate surface water potential to release according to HRS Section 4.1.2.1.2															
LR =	210														

LIKELIHOOD OF RELEASE GROUND WATER TO SURFACE WATER MIGRATION

	Score	Data Type	Refs
1. OBSERVED RELEASE: If sampling data or direct observation support a release to surface water in the watershed, assign a score of 550. Record observed release substances on SI Table 7.	NO DATA		
<p>NOTE: Evaluate ground water to surface water migration only for a surface water body that meets all of the following conditions:</p> <p>1) A portion of the surface water is within 1 mile of site sources having a containment factor greater than 0.</p> <p>2) No aquifer discontinuity is established between the source and the above portion of the surface water body.</p> <p>3) The top of the uppermost aquifer is at or above the bottom of the surface water.</p> <p>Elevation of top of uppermost aquifer _____</p> <p>Elevation of bottom of surface water body _____</p>			
2. POTENTIAL TO RELEASE: Use the ground water potential to release. Optionally, evaluate surface water potential to release according to HRS Section 3.1.2.	NA		
LR =	0		

TABLE 4-1
SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET

<u>Factor Categories and Factors</u>	<u>Maximum Value</u>	<u>Value Assigned</u>
DRINKING WATER THREAT		
<u>Likelihood of Release</u>		
1. Observed Release	550	<u>0</u>
2. Potential to Release by Overland Flow		
2a. Containment	10	<u>10</u> NO CONTAINMENT
2b. Runoff	25	<u>1</u>
2c. Distance to Surface Water	25	<u>20</u>
2d. Potential to Release by Overland Flow (lines 2a x [2b + 2c])	500	<u>210</u>
3. Potential to Release by Flood		
3a. Containment (Flood)	10	<u>10</u>
3b. Flood Frequency	50	<u>0</u>
3c. Potential to Release by Flood (lines 3a x 3b)	500	<u>0</u>
4. Potential to Release (lines 2d + 3c, subject to a maximum of 500)	500	<u>210</u>
5. Likelihood of Release (higher of lines 1 and 4)	550	<u>210</u>

TABLE 4-4
SOIL GROUP DESIGNATIONS

TABLE 4-3
DRAINAGE AREA VALUES

<u>Drainage Area (acres)</u>	<u>Assigned Value</u>
Less than 50	1
50 to 250	2
Greater than 250 to 1,000	3
Greater than 1,000	4

<u>Surface Soil Description</u>	<u>Soil Group Designation</u>
Coarse-textured soils with high infiltration rates (for example, sands, loamy sands)	A
Medium-textured soils with moderate infiltration rates (for example, sandy loams, loams)	B
Moderately fine-textured soils with low infiltration rates (for example, silty loams, silts, sandy clay loams)	C
Fine-textured soils with very low infiltration rates (for example, clays, sandy clays, silty clay loams, clay loams, silty clays); or impermeable surfaces (for example, pavement)	D

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A42

TABLE 4-5
RAINFALL/RUNOFF VALUES

2-Year, 24-Hour Rainfall* (inches)	Soil Group Designation			
	A	B	C	D
Less than 1.0	0	0	2	3
1.0 to less than 1.5	0	1	2	3
1.5 to less than 2.0	0	2	3	4
2.0 to less than 2.5	1	2	3	4
2.5 to less than 3.0	2	3	4	4
3.0 to less than 3.5	2	3	4	5
3.5 or greater	3	4	5	6

* Rainfall Frequency Atlas

TABLE 4-6
RUNOFF FACTOR VALUES

Drainage Area Value	Rainfall/Runoff Value							
	0	1	2	3	4	5	6	7
1	0	0	0	1	1	1	1	1
2	0	0	1	1	2	3	4	
3	0	0	1	3	7	11	15	
4	0	1	2	7	17	25	25	

TABLE 4-7
DISTANCE TO SURFACE WATER FACTOR VALUES

Distance	Assigned Value
Less than 100 feet	25
100 feet to 500 feet	20
Greater than 500 feet to 1,000 feet	16
Greater than 1,000 feet to 2,500 feet	9
Greater than 2,500 feet to 1.5 miles	6
Greater than 1.5 miles to 2 miles	3

TABLE 4-9
FLOOD FREQUENCY FACTOR VALUES

Floodplain Category	Assigned Value
Source floods annually	50
Source in 10-year floodplain	50
Source in 100-year floodplain	25
Source in 500-year floodplain	7
None of above	0

C23B
22. A

U.S. DEPARTMENT OF COMMERCE
WALTER H. HODGES, Secretary

WEATHER BUREAU
F. W. RECHLEDERFER, Chief

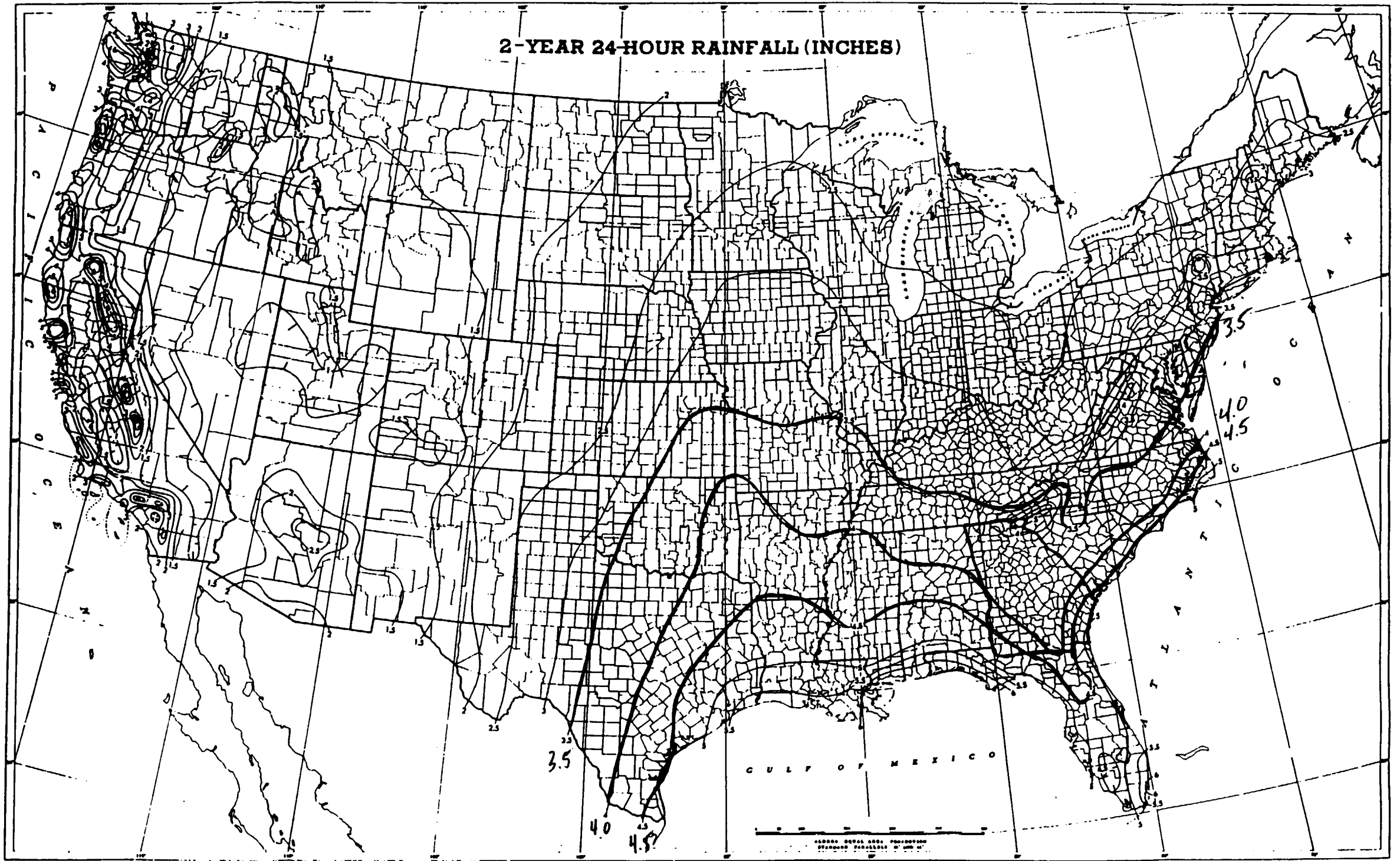
TECHNICAL PAPER NO. 40

RAINFALL FREQUENCY ATLAS OF THE UNITED STATES

for Durations from 30 Minutes to 24 Hours and
Return Periods from 1 to 100 Years

Prepared by
DAVID M. HERSCHFELD
Cooperative Studies Section, Hydrologic Services Division
for
Engineering Division, Soil Conservation Service
U.S. Department of Agriculture





**SURFACE WATER PATHWAY
LIKELIHOOD OF RELEASE AND DRINKING WATER THREAT WORKSHEET
(CONTINUED)**

DRINKING WATER THREAT TARGETS	Score	Data Type	Refs																
<p>Record the water body type, flow, and number of people served by each drinking water intake within the target distance limit in the watershed. If there is no drinking water intake within the target distance limit, assign 0 to factors 3, 4, and 5.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin: 10px 0;"> <thead> <tr> <th style="text-align: left;">Intake Name</th> <th style="text-align: left;">Water Body Type</th> <th style="text-align: left;">Flow</th> <th style="text-align: left;">People Served</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> <p>Are any intakes part of a blended system? Yes _____ No _____ If yes, attach a page to show apportionment calculations.</p> <p>3. ACTUAL CONTAMINATION TARGETS: If analytical evidence indicates a drinking water intake has been exposed to a hazardous substance from the site, list the intake name and evaluate the factor score for the drinking water population (SI Table 8).</p> <p>_____</p> <p>Level I: _____ people x 10 = _____ Level II: _____ people x 1 = _____ Total = _____</p>	Intake Name	Water Body Type	Flow	People Served													0		REF 11
Intake Name	Water Body Type	Flow	People Served																
<p>4. POTENTIAL CONTAMINATION TARGETS: Determine the number of people served by drinking water intakes for the watershed that have not been exposed to a hazardous substance from the site. Assign the population values from SI Table 9. Sum the values and multiply by 0.1.</p>	0																		
<p>5. NEAREST INTAKE: Assign a score of 50 for any Level I Actual Contamination Drinking Water Targets for the watershed. Assign a score of 45 if there are Level II targets for the watershed, but no Level I targets. If no Actual Contamination Drinking Water Targets exist, assign a score for the intake nearest the PPE from SI Table 9. If no drinking water intakes exist, assign 0.</p>	0																		
<p>6. RESOURCES: Assign a score of 5 if one or more surface water resource applies; assign 0 if none applies.</p> <ul style="list-style-type: none"> • Irrigation (5 acre minimum) of commercial food crops or commercial forage crops • Watering of commercial livestock • Ingredient in commercial food preparation • Major or designated water recreation area, excluding drinking water use 	<p style="transform: rotate(-45deg); font-weight: bold;">CONSERVATIVE ASSUMPTION</p> <p style="font-size: 2em;">5</p>																		
SUM OF TARGETS T=	5																		

SI TABLE 9 (From HRS Table 4-14): DILUTION-WEIGHTED POPULATION VALUES FOR POTENTIAL CONTAMINATION FOR SURFACE WATER MIGRATION PATHWAY

Type of Surface Water Body	Pop.	Nearest Intake	Number of people									Pop. Value
			0	1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	
Minimal Stream (<10 cfs)		20	0	4	17	53	164	522	1,633	5,214	16,325	
Small to moderate stream (10 to 100 cfs)		2	0	0.4	2	5	16	52	163	521	1,633	
Moderate to large stream (> 100 to 1,000 cfs)		0	0	0.04	0.2	0.5	2	5	16	52	163	
Large Stream to river (>1,000 to 10,000 cfs)		0	0	0.004	0.02	0.05	0.2	0.5	2	5	16	
Large River (> 10,000 to 100,000 cfs)		0	0	0	0.002	0.005	0.02	0.05	0.2	0.5	16	
Very Large River (>100,000 cfs)		0	0	0	0	0.001	0.002	0.005	0.02	0.05	0.2	
Shallow ocean zone or Great Lake (depth < 20 feet)		0	0	0	0.002	0.005	0.02	0.05	0.2	0.5	2	
Moderate ocean zone or Great Lake (Depth 20 to 200 feet)		0	0	0	0	0.001	0.002	0.005	0.02	0.05	0.2	
Deep ocean zone or Great Lake (depth > 200 feet)		0	0	0	0	0	0.001	0.003	0.008	0.03	0.08	
3-mile mixing zone in quiet flowing river (≥ 10 cfs)		10	0	2	9	26	82	261	817	2,607	8,163	
Nearest Intake =			Sum =									

NO SURFACE WATER
INTAKES ALONG PATHWAY

References

TABLE 4-14 (Concluded)

Type of Surface Water Body ^b	Number of People				
	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	1,000,001 to 3,000,000	3,000,001 to 10,000,000
Minimal stream (< 10 cfs)	52,137	163,246	521,360	1,632,455	5,213,590
Small to moderate stream (10 to 100 cfs)	5,214	16,325	52,136	163,245	521,359
Moderate to large stream (> 100 to 1,000 cfs)	521	1,633	5,214	16,325	52,136
Large stream to river ($> 1,000$ to 10,000 cfs)	52	163	521	1,632	5,214
Large river ($> 10,000$ to 100,000 cfs)	5	16	52	163	521
Very large river ($> 100,000$ cfs)	0.5	2	5	16	52
Shallow ocean zone or Great Lake (depth < 20 feet)	5	16	52	163	521
Moderate ocean zone or Great Lake (depth 20 to 200 feet)	0.5	2	5	16	52
Deep zone or Great Lake (depth > 200 feet)	0.3	1	3	8	26
3-mile mixing zone in quiet flowing river (≥ 10 cfs)	26,068	81,623	260,680	816,227	2,606,795

^aRound the number of people to nearest integer. Do not round the assigned dilution-weighted population value to nearest integer.

^bTreat each lake as a separate type of water body and assign it a dilution-weighted population value using the surface water body type with the same dilution weight from Table 4-13 as the lake. If drinking water is withdrawn from coastal tidal water or the ocean, assign a dilution-weighted population value to it using the surface water body type with the same dilution weight from Table 4-13 as the coastal tidal water or the ocean zone.

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PC-25a

SURFACE WATER PATHWAY

Human Food Chain Actual Contamination Targets Summary Table

On SI Table 10, list the hazardous substances detected in sediment, aqueous, sessile benthic organism tissue, or fish tissue samples (taken from fish caught within the boundaries of the observed release) by sample ID and concentration. Evaluate fisheries within the boundaries of observed releases detected by sediment or aqueous samples as Level II, if at least one observed release substance has a bioaccumulation potential factor value of 500 or greater (see SI Table 7). Obtain benchmark, cancer risk, and reference dose concentrations from SCDM. For FDAAL benchmarks, determine the highest percentage of benchmark obtained for any substance. For cancer risk and reference dose, sum the percentages for the substances listed. If benchmark, cancer risk, or reference dose concentrations are not available for a particular substance, enter N/A for the percentage. If the highest benchmark percentage sum calculated for cancer risk or reference dose equals or exceeds 100%, evaluate this portion of the fishery as subject to Level I concentrations. If the percentages are less than 100% or all are N/A, evaluate the fishery as a Level II target.

Sensitive Environment Actual Contamination Targets Summary Table

On SI Table 11, list each hazardous substance detected in aqueous or sediment samples at or beyond wetlands or a surface water sensitive environment by sample ID. Record the concentration. If contaminated sediments or tissues are detected at or beyond a sensitive environment, evaluate the sensitive environment as Level II. Obtain benchmark concentrations from SCDM. For AWQC/AALAC benchmarks, determine the highest percentage of benchmark of the substances detected in aqueous samples. If benchmark concentrations are not available for a particular substance, enter N/A for the percentage. If the highest benchmark percentage equals or exceeds 100%, evaluate that part of the sensitive environment subject to Level I concentrations. If the percentage is less than 100%, or all are N/A, evaluate the sensitive environment as Level II.

NO DATA

SI TABLE 10: HUMAN FOOD CHAIN ACTUAL CONTAMINATION TARGETS FOR WATERSHED

Fishery ID: _____ Sample Type _____ Level I _____ Level II _____ References _____

Sample ID	Hazardous Substance	Conc. (mg/kg)	Benchmark Concentration (FDAAL)	% of Benchmark	Cancer Risk Concentration	% of Cancer Risk Concentration	RID	% of RID
Highest Percent					Sum of Percents		Sum of Percents	

SI TABLE 11: SENSITIVE ENVIRONMENT ACTUAL CONTAMINATION TARGETS FOR WATERSHED

Environment ID: _____ Sample Type _____ Level I _____ Level II _____ Environment Value _____

Sample ID	Hazardous Substance	Conc., (µg/L)	Benchmark Concentration (AWQC or AALAC)	% of Benchmark	References
Highest Percent					

Environment ID: _____ Sample Type _____ Level I _____ Level II _____ Environment Value _____

Sample ID	Hazardous Substance	Conc., (µg/L)	Benchmark Concentration (AWQC or AALAC)	% of Benchmark	References
Highest Percent					

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SURFACE WATER PATHWAY (continued) HUMAN FOOD CHAIN THREAT WORKSHEET

HUMAN FOOD CHAIN THREAT TARGETS	Score	Data Type	Refs										
<p>Record the water body type and flow for each fishery within the target distance limit. If there is no fishery within the target distance limit, assign a score of 0 at the bottom of this page.</p>													
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> Fishery Name _____ Water Body _____ Flow _____ cfs Species _____ Production _____ lbs/yr Species _____ Production _____ lbs/yr </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> Fishery Name _____ Water Body _____ Flow _____ cfs Species _____ Production _____ lbs/yr Species _____ Production _____ lbs/yr </div> <div style="border: 1px solid black; padding: 5px;"> Fishery Name _____ Water Body _____ Flow _____ cfs Species _____ Production _____ lbs/yr Species _____ Production _____ lbs/yr </div>													
<p>FOOD CHAIN INDIVIDUAL</p>													
<p>7. ACTUAL CONTAMINATION FISHERIES:</p> <p>If analytical evidence indicates that a fishery has been exposed to a hazardous substance with a bioaccumulation factor greater than or equal to 500 (SI Table 10), assign a score of 50 if there is a Level I fishery. Assign 45 if there is a Level II fishery, but no Level I fishery.</p>													
<p><i>NO DATA</i></p>													
<p>8. POTENTIAL CONTAMINATION FISHERIES:</p> <p>If there is a release of a substance with a bioaccumulation factor greater than or equal to 500 to a watershed containing fisheries within the target distance limit, but there are no Level I or Level II fisheries, assign a score of 20.</p> <p>If there is no observed release to the watershed, assign a value for potential contamination fisheries from the table below using the lowest flow at all fisheries within the target distance limit:</p> <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width:50%;">Lowest Flow</th> <th style="width:50%;">FCI Value</th> </tr> </thead> <tbody> <tr> <td><10 cfs</td> <td align="center">20</td> </tr> <tr> <td>10 to 100 cfs</td> <td align="center">2</td> </tr> <tr> <td>>100 cfs, coastal tidal waters, oceans, or Great Lakes</td> <td align="center">0</td> </tr> <tr> <td>3-mile mixing zone in quiet flowing river</td> <td align="center">10</td> </tr> </tbody> </table>				Lowest Flow	FCI Value	<10 cfs	20	10 to 100 cfs	2	>100 cfs, coastal tidal waters, oceans, or Great Lakes	0	3-mile mixing zone in quiet flowing river	10
Lowest Flow	FCI Value												
<10 cfs	20												
10 to 100 cfs	2												
>100 cfs, coastal tidal waters, oceans, or Great Lakes	0												
3-mile mixing zone in quiet flowing river	10												
<p><i>NO OBSERVED RELEASE</i></p>													
FCI Value =			20										
SUM OF TARGETS T =			20										

SURFACE WATER PATHWAY (continued) ENVIRONMENTAL THREAT WORKSHEET

When measuring length of wellands that are located on both sides of a surface water body, sum both frontage lengths. For a sensitive environment that is more than one type, assign a value for each type.

ENVIRONMENTAL THREAT TARGETS	Score	Data Type	Refs																																																																													
<p>Record the water body type and flow for each surface water sensitive environment within the target distance (see SI Table 12). If there is no sensitive environment within the target distance limit, assign a score of 0 at the bottom of the page.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Environment Name</th> <th style="text-align: left;">Water Body Type</th> <th style="text-align: left;">Flow</th> </tr> </thead> <tbody> <tr> <td>WAHOO CREEK</td> <td>MINIMAL STREAM</td> <td>210 cfs</td> </tr> <tr> <td>CHATTAHOOCHEE RIVER</td> <td>RIVER</td> <td>3965 cfs</td> </tr> <tr> <td>UNAMED STREAM</td> <td>MINIMAL STREAM</td> <td>210 cfs</td> </tr> <tr> <td> </td> <td> </td> <td>cfs</td> </tr> <tr> <td> </td> <td> </td> <td>cfs</td> </tr> </tbody> </table> <p>9. ACTUAL CONTAMINATION SENSITIVE ENVIRONMENTS: If sampling data or direct observation indicate any sensitive environment has been exposed to a hazardous substance from the site, record this information on SI Table 11, and assign a factor value for the environment (SI Tables 13 and 14).</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Environment Name</th> <th style="text-align: left;">Environment Type and Value (SI Tables 13 & 14)</th> <th style="text-align: left;">Multiplier (10 for Level I, 1 for Level II)</th> <th style="text-align: left;">Product</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td>x</td> <td>=</td> </tr> <tr> <td> </td> <td> </td> <td>x</td> <td>=</td> </tr> <tr> <td> </td> <td> </td> <td>x</td> <td>=</td> </tr> <tr> <td> </td> <td> </td> <td>x</td> <td>=</td> </tr> <tr> <td colspan="3" style="text-align: right;">Sum =</td> <td> </td> </tr> </tbody> </table> <p>10. POTENTIAL CONTAMINATION SENSITIVE ENVIRONMENTS:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Flow</th> <th style="text-align: left;">Dilution Weight (SI Table 12)</th> <th style="text-align: left;">Environment Type and Value (SI Tables 13 & 14)</th> <th style="text-align: left;">Pot. Cont.</th> <th style="text-align: left;">Product</th> </tr> </thead> <tbody> <tr> <td>cfs</td> <td>x</td> <td>x</td> <td>0.1 =</td> <td> </td> </tr> <tr> <td>cfs</td> <td>x</td> <td>20 x</td> <td>0.1 =</td> <td> </td> </tr> <tr> <td>cfs</td> <td>x</td> <td>x</td> <td>0.1 =</td> <td> </td> </tr> <tr> <td>cfs</td> <td>x</td> <td>x</td> <td>0.1 =</td> <td> </td> </tr> <tr> <td>cfs</td> <td>x</td> <td>x</td> <td>0.1 =</td> <td> </td> </tr> <tr> <td colspan="4" style="text-align: right;">Sum =</td> <td>20</td> </tr> </tbody> </table> <p style="text-align: right; margin-top: 10px;">T = 20</p>	Environment Name	Water Body Type	Flow	WAHOO CREEK	MINIMAL STREAM	210 cfs	CHATTAHOOCHEE RIVER	RIVER	3965 cfs	UNAMED STREAM	MINIMAL STREAM	210 cfs			cfs			cfs	Environment Name	Environment Type and Value (SI Tables 13 & 14)	Multiplier (10 for Level I, 1 for Level II)	Product			x	=			x	=			x	=			x	=	Sum =				Flow	Dilution Weight (SI Table 12)	Environment Type and Value (SI Tables 13 & 14)	Pot. Cont.	Product	cfs	x	x	0.1 =		cfs	x	20 x	0.1 =		cfs	x	x	0.1 =		cfs	x	x	0.1 =		cfs	x	x	0.1 =		Sum =				20	NO DIRECT OBSERVATION		
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SI TABLE 12 (HRS Table 4-13):
SURFACE WATER DILUTION WEIGHTS

Type of Surface Water Body		Assigned Dilution Weight
Descriptor	Flow Characteristics	
Minimal stream	< 10 cfs	1
Small to moderate stream	10 to 100 cfs	0.1
Moderate to large stream	> 100 to 1,000 cfs	0.01
Large stream to river	> 1,000 to 10,000 cfs	0.001
Large river	> 10,000 to 100,000 cfs	0.0001
Very large river	> 100,000 cfs	0.00001
Coastal tidal waters	Flow not applicable; depth not applicable	0.001 0.0001
Shallow ocean zone or Great Lake	Flow not applicable; depth less than 20 feet	0.001 0.0001
Moderate depth ocean zone or Great Lake	Flow not applicable; depth 20 to 200 feet	0.0001 0.00001
Deep ocean zone or Great Lake	Flow not applicable; depth greater than 200 feet	0.000005
3-mile mixing zone in quiet-flowing river	10 cfs or greater	0.5

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**SI TABLE 13 (HRS TABLE 4-23):
SURFACE WATER AND AIR SENSITIVE ENVIRONMENTS VALUES**

SENSITIVE ENVIRONMENT	ASSIGNED VALUE
Critical habitat for Federal designated endangered or threatened species Marine Sanctuary National Park Designated Federal Wilderness Area Ecologically important areas identified under the Coastal Zone Wilderness Act Sensitive Areas identified under the National Estuary Program or Near Coastal Water Program of the Clean Water Act Critical Areas identified under the Clean Lakes Program of the Clean Water Act (subareas in lakes or entire small lakes) National Monument (air pathway only) National Seashore Recreation Area National Lakeshore Recreation Area	100
Habitat known to be used by Federal designated or proposed endangered or threatened species National Preserve National or State Wildlife Refuge Unit of Coastal Barrier Resources System Coastal Barrier (undeveloped) Federal land designated for the protection of natural ecosystems Administratively Proposed Federal Wilderness Area Spawning areas critical for the maintenance of fish/shellfish species within a river system, bay, or estuary Migratory pathways and feeding areas critical for the maintenance of anadromous fish species within river reaches or areas in lakes or coastal tidal waters in which the fish spend extended periods of time Terrestrial areas utilized by large or dense aggregations of vertebrate animals (semi-aquatic foragers) for breeding National river reach designated as recreational	75
Habitat known to be used by State designated endangered or threatened species Habitat known to be used by a species under review as to its Federal endangered or threatened status Coastal Barrier (partially developed) Federally designated Scenic or Wild River	50
State land designated for wildlife or game management State designated Scenic or Wild River State designated Natural Area Particular areas, relatively small in size, important to maintenance of unique biotic communities	25
State designated areas for the protection of maintenance of aquatic life under the Clean Water Act	5
Wetlands See SI Table 14 (Surface Water Pathway) or SI Table 23 (Air Pathway)	-

**SI TABLE 14 (HRS TABLE 4-24): SURFACE WATER
WETLANDS FRONTAGE VALUES**

Total Length of Wetlands	Assigned Value
Less than 0.1 mile	0
0.1 to 1 mile	25
Greater than 1 to 2 miles	50
Greater than 2 to 3 miles	75
Greater than 3 to 4 miles	100
Greater than 4 to 8 miles	150
Greater than 8 to 12 miles	250
Greater than 12 to 16 miles	350
Greater than 16 to 20 miles	450
Greater than 20 miles	500

**SURFACE WATER PATHWAY (concluded)
WASTE CHARACTERISTICS, THREAT, AND PATHWAY SCORE SUMMARY**

WASTE CHARACTERISTICS	Score																														
14. If an Actual Contamination Target (drinking water, human food chain, or environmental threat) exists for the watershed, assign the calculated hazardous waste quantity score, or a score of 100, whichever is greater.	NO ACTUAL CONTAMINATION																														
15. Assign the highest value from SI Table 7 (observed release) or SI Table 3 (no observed release) for the hazardous substance waste characterization factors below. Multiply each by the surface water hazardous waste quantity score and determine the waste characteristics score for each threat.																															
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Substance Value</th> <th>HWO</th> <th>Product</th> </tr> </thead> <tbody> <tr> <td>Drinking Water Threat Toxicity/Persistence</td> <td align="center">$10,000$</td> <td align="center">10</td> <td align="center">1×10^5</td> </tr> <tr> <td>Food Chain Threat Toxicity/Persistence Bioaccumulation</td> <td align="center">5×10^8</td> <td align="center">10</td> <td align="center">5×10^9</td> </tr> <tr> <td>Environmental Threat Ecotoxicity/Persistence/ Ecobioaccumulation</td> <td align="center">5×10^8</td> <td align="center">10</td> <td align="center">5×10^9</td> </tr> </tbody> </table>		Substance Value	HWO	Product	Drinking Water Threat Toxicity/Persistence	$10,000$	10	1×10^5	Food Chain Threat Toxicity/Persistence Bioaccumulation	5×10^8	10	5×10^9	Environmental Threat Ecotoxicity/Persistence/ Ecobioaccumulation	5×10^8	10	5×10^9	<p align="center">WC Score (from Table) (Maximum of 100)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr> <td align="center">18</td> <td align="right"><small>max = 100</small></td> </tr> <tr> <td align="center">180</td> <td align="right"><small>max = 1000</small></td> </tr> <tr> <td align="center">180</td> <td align="right"><small>max = 1000</small></td> </tr> </tbody> </table>	18	<small>max = 100</small>	180	<small>max = 1000</small>	180	<small>max = 1000</small>								
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Product	WC Score																														
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SURFACE WATER PATHWAY THREAT SCORES

Threat	Likelihood of Release (LR) Score	Targets (T) Score	Pathway Waste Characteristics (WC) Score (determined above)	Threat Score $\frac{LR \times T \times WC}{82,500}$
Drinking Water	210	5	18	0.23 <small>(maximum of 100)</small>
Human Food Chain	210	20	180	916 <small>(maximum of 100)</small>
Environmental	210	0	180	0 <small>(maximum of 60)</small>

**SURFACE WATER PATHWAY SCORE
(Drinking Water Threat + Human Food Chain Threat + Environmental Threat)**

(maximum of 100)

9.39

SOIL EXPOSURE PATHWAY

If there is no observed contamination (e.g., ground water plume with no known surface source), do not evaluate the soil exposure pathway. Discuss evidence for no soil exposure pathway.

Soil Exposure Resident Population Targets Summary

For each property (duplicate page 35 as necessary):

If there is an area of observed contamination on the property and within 200 feet of a residence, school, or day care center, enter on Table 15 each hazardous substance by sample ID. Record the detected concentration. Obtain cancer risk, and reference dose concentrations from SCDM. Sum the cancer risk and reference dose percentages for the substances listed. If cancer risk or reference dose concentrations are not available for a particular substance, enter N/A for the percentage. If the percentage sum calculated for cancer risk or reference dose equals or exceeds 100%, evaluate the residents and students as Level I. If both percentages are less than 100% or all are N/A, evaluate the targets as Level II.

NO SAMPLING DATA

SI TABLE 15: SOIL EXPOSURE RESIDENT POPULATION TARGETS

Residence ID: _____ Level I _____ Level II _____ Population _____

Sample ID	Hazardous Substance	Conc. (mg/kg)	Cancer Risk Concentration	% of Cancer Risk Conc.	RID	% of RID	Toxicity Value	References
			Highest Percent		Sum of Percents		Sum of Percents	

Residence ID: _____ Level I _____ Level II _____ Population _____

Sample ID	Hazardous Substance	Conc. (mg/kg)	Cancer Risk Concentration	% of Cancer Risk Conc.	RID	% of RID	Toxicity Value	References
			Highest Percent		Sum of Percents		Sum of Percents	

Residence ID: _____ Level I _____ Level II _____ Population _____

Sample ID	Hazardous Substance	Conc. (mg/kg)	Cancer Risk Concentration	% of Cancer Risk Conc.	RID	% of RID	Toxicity Value	References
			Highest Percent		Sum of Percents		Sum of Percents	

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SOIL EXPOSURE PATHWAY WORKSHEET RESIDENT POPULATION THREAT

LIKELIHOOD OF EXPOSURE

	Score	Data Type	Refs
1. OBSERVED CONTAMINATION: If evidence indicates presence of observed contamination (depth of 2 feet or less), assign a score of 550; otherwise, assign a 0. Note that a likelihood of exposure score of 0 results in a soil exposure pathway score of 0.			
LE =	550		

TARGETS

<p>2. RESIDENT POPULATION: Determine the number of people living or attending school or day care on a property with an area of observed contamination and whose residence, school, or day care center, respectively, is on or within 200 feet of the area of observed contamination.</p> <p>Level I: _____ people x 10 = _____</p> <p>Level II: _____ people x 1 = _____</p> <p style="text-align: right;">Sum = _____</p>	NO OBSERVED ϕ												
<p>3. RESIDENT INDIVIDUAL: Assign a score of 50 if any Level I resident population exists. Assign a score of 45 if there are Level II targets but no Level I targets. If no resident population exists (i.e., no Level I or Level II targets), assign 0 (HRS Section 5.1.3).</p>	ϕ												
<p>4. WORKERS: Assign a score from the table below for the total number of workers at the site and nearby facilities with areas of observed contamination associated with the site.</p> <table border="1" style="margin: 10px auto; width: 60%;"> <thead> <tr> <th>Number of Workers</th><th>Score</th></tr> </thead> <tbody> <tr> <td>0</td><td>0</td></tr> <tr> <td>1 to 100</td><td>5</td></tr> <tr> <td>101 to 1,000</td><td>10</td></tr> <tr> <td>>1,000</td><td>15</td></tr> </tbody> </table>	Number of Workers	Score	0	0	1 to 100	5	101 to 1,000	10	>1,000	15	5		
Number of Workers	Score												
0	0												
1 to 100	5												
101 to 1,000	10												
>1,000	15												
<p>5. TERRESTRIAL SENSITIVE ENVIRONMENTS: Assign a value for each terrestrial sensitive environment (SI Table 16) in an area of observed contamination.</p> <table border="1" style="margin: 10px auto; width: 60%;"> <thead> <tr> <th>Terrestrial Sensitive Environment Type</th><th>Value</th></tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table> <p style="text-align: right;">Sum = _____</p>	Terrestrial Sensitive Environment Type	Value									ϕ		
Terrestrial Sensitive Environment Type	Value												
<p>6. RESOURCES: Assign a score of 5 if any one or more of the following resources is present on an area of observed contamination at the site; assign 0 if none applies.</p> <ul style="list-style-type: none"> • Commercial agriculture • Commercial silviculture • Commercial livestock production or commercial livestock grazing 	ϕ												
Total of Targets T=	5												

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SI TABLE 16 (HRS TABLE 5-5): SOIL EXPOSURE PATHWAY
TERRESTRIAL SENSITIVE ENVIRONMENT VALUES

TERRESTRIAL SENSITIVE ENVIRONMENT	ASSIGNED VALUE
Terrestrial critical habitat for Federal designated endangered or threatened species National Park Designated Federal Wilderness Area National Monument	100
Terrestrial habitat known to be used by Federal designated or proposed threatened or endangered species National Preserve (terrestrial) National or State terrestrial Wildlife Refuge Federal land designated for protection of natural ecosystems Administratively proposed Federal Wilderness Area Terrestrial areas utilized by large or dense aggregations of animals (vertebrate species) for breeding	75
Terrestrial habitat used by State designated endangered or threatened species Terrestrial habitat used by species under review for Federal designated endangered or threatened status	50
State lands designated for wildlife or game management State designated Natural Areas Particular areas, relatively small in size, important to maintenance of unique biotic communities	25

SOIL EXPOSURE PATHWAY WORKSHEET NEARBY POPULATION THREAT

LIKELIHOOD OF EXPOSURE		Score	Data Type	Rel.
7. Attractiveness/Accessibility (from SI Table 17 or HRS Table 5-6)	Value <u>10</u>	5		
Area of Contamination (from SI Table 18 or HRS Table 5-7)	Value <u>20</u>			
Likelihood of Exposure (from SI Table 19 or HRS Table 5-8)				

note: if there is no area of
observed contamination,
LE = 0.

LE =

TARGETS		Score	Data Type	Rel.
8. Assign a score of 0 if Level I or Level II resident individual has been evaluated or if no individuals live within 1/4 mile travel distance of an area of observed contamination. Assign a score of 1 if nearby population is within 1/4 mile travel distance and no Level I or Level II resident population has been evaluated.	1			
9. Determine the population within 1 mile travel distance that is not exposed to a hazardous substance from the site (i.e., properties that are not determined to be Level I or Level II); record the population for each distance category in SI Table 20 (HRS Table 5-10). Sum the population values and multiply by 0.1.	2			1, 3, 17
		3		

T =

POPULATION
w/in 1/4 mile

**SI TABLE 17 (HRS TABLE 5-6):
ATTRACTIVENESS/ACCESSIBILITY VALUES**

Area of Observed Contamination	Assigned Value
Designated recreational area	100
Regularly used for public recreation (for example, vacant lots in urban area)	75
Accessible and unique recreational area (for example, vacant lots in urban area)	75
Moderately accessible (may have some access improvements—for example, gravel road) with some public recreation use	50
Slightly accessible (for example, extremely rural area with no road improvement) with some public recreation use	25
Accessible with no public recreation use	10
Surrounded by maintained fence or combination of maintained fence and natural barriers	5
Physically inaccessible to public, with no evidence of public recreation use	0

SI TABLE 18 (HRS TABLE 5-7): AREA OF CONTAMINATION FACTOR VALUES

Total area of the areas of observed contamination (square feet)	Assigned Value
≤ to 5,000	5
> 5,000 to 125,000	20
> 125,000 to 250,000	40
> 250,000 to 375,000	60
> 375,000 to 500,000	80
> 500,000	100

SI TABLE 19 (HRS TABLE 5-8): NEARBY POPULATION LIKELIHOOD OF EXPOSURE FACTOR VALUES

AREA OF CONTAMINATION FACTOR VALUE	ATTRACTIVENESS/ACCESSIBILITY FACTOR VALUE						
	100	75	50	25	10	5	0
100	500	500	375	250	125	50	0
80	500	375	250	125	50	25	0
60	375	250	125	50	25	5	0
40	250	125	50	25	5	5	0
20	125	50	25	5	5	5	0
5	50	25	5	5	5	5	0

SI TABLE 20 (HRS TABLE 5-10): DISTANCE-WEIGHTED POPULATION VALUES FOR NEARBY POPULATION THREAT

Travel Distance Category (miles)	Pop.	Number of people within the travel distance category												Pop. Value
		0	1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,001	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	
Greater than 0 to $\frac{1}{4}$	297	0	0.1	0.4	1.0	4	13	41	130	408	1,303	4,081	13,034	4
Greater than $\frac{1}{4}$ to $\frac{1}{2}$	647	0	0.05	0.2	0.7	2	7	20	65	204	652	2,041	6,517	7
Greater than $\frac{1}{2}$ to 1	2249	0	0.02	0.1	0.3	1	3	10	33	102	326	1,020	3,258	10
Reference(s) _____ Sum = 21														

$$21 \times 0.1 = 2.1 \Rightarrow 2$$

SOIL EXPOSURE PATHWAY WORKSHEET (concluded)

WASTE CHARACTERISTICS

10. Assign the hazardous waste quantity score calculated for soil exposure HRS Section 5-1.2.2 and HRS Table 5-2. SUB SURFACE DRAINFIELD	10																						
11. Assign the highest toxicity value from SI Table 16 ^{3 or} for the soil exposure pathway <div style="text-align: center; margin-top: 10px;">TABLE 3</div>	10,000																						
12. Multiply the toxicity and hazardous waste quantity scores. Assign the Waste Characteristics score from the table below: <table border="1" style="margin: 10px auto; border-collapse: collapse; font-size: 0.8em;"> <thead> <tr> <th>Product</th> <th>WC Score</th> </tr> </thead> <tbody> <tr><td>0</td><td>0</td></tr> <tr><td>>0 to <10</td><td>1</td></tr> <tr><td>10 to <100</td><td>2</td></tr> <tr><td>100 to <1,000</td><td>3</td></tr> <tr><td>1,000 to <10,000</td><td>6</td></tr> <tr><td>10,000 to <1E+05</td><td>10</td></tr> <tr style="border: 2px solid black;"><td>1E+05 to <1E+06</td><td>18</td></tr> <tr><td>1E+06 to <1E+07</td><td>32</td></tr> <tr><td>1E+07 to <1E+08</td><td>56</td></tr> <tr><td>1E+08 or greater</td><td>100</td></tr> </tbody> </table>	Product	WC Score	0	0	>0 to <10	1	10 to <100	2	100 to <1,000	3	1,000 to <10,000	6	10,000 to <1E+05	10	1E+05 to <1E+06	18	1E+06 to <1E+07	32	1E+07 to <1E+08	56	1E+08 or greater	100	WC = 18
Product	WC Score																						
0	0																						
>0 to <10	1																						
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100 to <1,000	3																						
1,000 to <10,000	6																						
10,000 to <1E+05	10																						
1E+05 to <1E+06	18																						
1E+06 to <1E+07	32																						
1E+07 to <1E+08	56																						
1E+08 or greater	100																						

RESIDENT POPULATION THREAT SCORE:

(Likelihood of Exposure, Question 1;
Targets = Sum of Questions 2, 3, 4, 5, 6)

$$\frac{L \times T \times W C}{82,500} =$$

0.60

NEARBY POPULATION THREAT SCORE:

(Likelihood of Exposure, Question 7;
Targets = Sum of Questions 8, 9)

$$\frac{L \times T \times W C}{82,500} =$$

0.033

SOIL EXPOSURE PATHWAY SCORE:

Resident Population Threat + Nearby Population Threat

0.60

(Maximum of 100)

ITS A SUBSURFACE DRAINFIELD OUTSIDE THE
500 YEAR FLOODPLAIN AND COVERED WITH
VEGETATION.

AIR PATHWAY

Air Pathway Observed Substances Summary Table

On SI Table 21, list the hazardous substances detected in air samples of a release from the site. Include only those substances with concentrations significantly greater than background levels. Obtain benchmark, cancer risk, and reference dose concentrations from SCDM. For NAAQS/NESHAPS benchmarks, determine the highest percentage of benchmark obtained for any substance. For cancer risk and reference dose, sum the percentages for the substances listed. If benchmark, cancer risk, or reference dose concentrations are not available for a particular substance, enter N/A for the percentage. If the highest benchmark percentage or the percentage sum calculated for cancer risk or reference dose equals or exceeds 100%, evaluate targets in the distance category from which the sample was taken and any closer distance categories as Level I. If the percentages are less than 100% or all are N/A, evaluate targets in that distance category and any closer distance categories that are not Level I as Level II.

NO AIR SAMPLING DATA

SI TABLE 21: AIR PATHWAY OBSERVED RELEASE SUBSTANCES

Sample ID: _____ Level I _____ Level II _____ Distance from Sources (mi) _____ References _____

Hazardous Substance	Conc. ($\mu\text{g}/\text{m}^3$)	Gaseous Particulate	Benchmark Conc. (NAAQS or NESHAPS)	% of Benchmark	Cancer Risk Conc.	% of Cancer Risk Conc.	RfD	% of RfD
Highest Toxicity/Mobility			Highest Percent		Sum of Percents		Sum of Percents	

Sample ID: _____ Level I _____ Level II _____ Distance from Sources (mi) _____ References _____

Hazardous Substance	Conc. ($\mu\text{g}/\text{m}^3$)	Toxicity/Mobility	Benchmark Conc. (NAAQS or NESHAPS)	% of Benchmark	Cancer Risk Conc.	% of Cancer Risk Conc.	RfD	% of RfD
Highest Toxicity/Mobility			Highest Percent		Sum of Percents		Sum of Percents	

Sample ID: _____ Level I _____ Level II _____ Distance from Sources (mi) _____ References _____

Hazardous Substance	Conc. ($\mu\text{g}/\text{m}^3$)	Toxicity/Mobility	Benchmark Conc. (NAAQS or NESHAPS)	% of Benchmark	Cancer Risk Conc.	% of Cancer Risk Conc.	RfD	% of RfD
Highest Toxicity/Mobility			Highest Percent		Sum of Percents		Sum of Percents	

C-43

AIR PATHWAY WORKSHEET

LIKELIHOOD OF RELEASE	Score	Data Type	Refs
1. OBSERVED RELEASE: If sampling data or direct observation support a release to air, assign a score of 550. Record observed release substances on SI Table 21.	NO OBSERVED		
2. POTENTIAL TO RELEASE: If sampling data do not support a release to air, assign a score of 500. Optionally, evaluate air migration gaseous and particulate potential to release (HRS Section 6.1.2).	500		
LR =		500	

TARGETS

3. ACTUAL CONTAMINATION POPULATION: Determine the number of people within the target distance limit subject to exposure from a release of a hazardous substance to the air. a) Level I: _____ people x 10 = _____ b) Level II: _____ people x 1 = _____ Total = _____	NO DATA																														
4. POTENTIAL TARGET POPULATION: Determine the number of people within the target distance limit not subject to exposure from a release of a hazardous substance to the air, and assign the total population score from SI Table 22. Sum the values and multiply the sum by 0.1.	14		17.8																												
5. NEAREST INDIVIDUAL: Assign a score of 50 if there are any Level I targets. Assign a score of 45 if there are Level II targets but no Level I targets. If no Actual Contamination Population exists, assign the Nearest Individual score from SI Table 22.	20		17																												
6. ACTUAL CONTAMINATION SENSITIVE ENVIRONMENTS: Sum the sensitive environment values (SI Table 13) and wetland acreage values (SI Table 23) for environments subject to exposure from the release of a hazardous substance to the air. <table border="1" style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Sensitive Environment Type</th> <th style="text-align: center;">Value</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table> <table border="1" style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Wetland Acreage</th> <th style="text-align: center;">Value</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>	Sensitive Environment Type	Value													Wetland Acreage	Value													NO DATA		
Sensitive Environment Type	Value																														
Wetland Acreage	Value																														
7. POTENTIAL CONTAMINATION SENSITIVE ENVIRONMENTS: Use SI Table 24 to evaluate sensitive environments not subject to exposure from a release.	0.023		✓																												
8. RESOURCES: Assign a score of 5 if one or more air resources apply within 1/2 mile of a source; assign a 0 if none applies. <ul style="list-style-type: none"> • Commercial agriculture • Commercial silviculture • Major or designated recreation area 	0																														
T =		34.023																													

SI TABLE 22 (From HRS TABLE 6-17): VALUES FOR POTENTIAL CONTAMINATION AIR TARGET POPULATIONS

Distance from Site	Pop.	Nearest Individual (choose highest)	Number of People within the Distance Category												Pop. Value
			1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	1,000,001 to 3,000,000	
On a source	0	20	4	17	53	184	522	1,633	5,214	16,325	52,137	163,246	521,360	1,632,455	0
0 to $\frac{1}{4}$ mile	297	•	1	4	13	41	131	408	1,304	4,081	13,034	40,812	130,340	408,114	41
$>\frac{1}{4}$ to $\frac{1}{2}$ mile	647	2	0.2	0.9	3	9	28	88	282	882	2,815	8,815	28,153	88,153	28
$>\frac{1}{2}$ to 1 mile	2249	1	0.08	0.3	0.9	3	8	26	83	261	834	2,612	8,342	26,119	26
>1 to 2 miles	5799	0	0.02	0.09	0.3	0.8	3	8	27	83	266	833	2,659	8,326	27
>2 to 3 miles	5066	0	0.009	0.04	0.1	0.4	1	4	12	39	120	375	1,199	3,755	12
>3 to 4 miles	6476	0	0.005	0.02	0.07	0.2	0.7	2	7	28	73	229	730	2,285	7
Nearest Individual = 20			Sum = 141												

References 1, 17 $141(0.1) = 14.1 \Rightarrow 14$

* Score = 20 if the Nearest Individual is within $\frac{1}{8}$ mile of a source; score = 7 if the Nearest Individual is between $\frac{1}{8}$ and $\frac{1}{4}$ mile of a source.

** 0 - $\frac{1}{4}$ MILE WAS BASED ON HOUSE COUNT FROM USGS MAP.
GEMS REGISTERED 0 EVEN THOUGH HOUSES WERE ON THE MAP.

SI TABLE 23 (HRS TABLE 6-18): AIR PATHWAY VALUES FOR WETLAND AREA

Wetland Area	Assigned Value
< 1 acre	0
1 to 50 acres	25
> 50 to 100 acres	75
> 100 to 150 acres	125
> 150 to 200 acres	175
> 200 to 300 acres	250
> 300 to 400 acres	350
> 400 to 500 acres	450
> 500 acres	500

SI TABLE 24: DISTANCE WEIGHTS AND CALCULATIONS FOR AIR PATHWAY POTENTIAL CONTAMINATION SENSITIVE ENVIRONMENTS

Distance	Distance Weight	Sensitive Environment Type and Value (from SI Tables 13 and 20) 23	Product
On a Source	0.10	x	
Ø		x	
0 to 1/4 mile	0.025	x	
Ø		x	
		x	
1/4 to 1/2 mile	0.0054	x	
Ø		x	
		x	
1/2 to 1 mile	0.0016	x	
Ø		x	
		x	
1 to 2 miles	0.0005	x 22 ACRE WETLAND 25	0.0125
~22		x	
		x	
2 to 3 miles	0.00023	x	
Ø		x	
		x	
3 to 4 miles	0.00014	x 91 ACRE WETLANDS 75	0.0105
400 x 100		x	
		x	
> 4 miles	0	x	
Total Environments Score =			0.0230

AIR PATHWAY (concluded)

WASTE CHARACTERISTICS

<p>9. If any Actual Contamination Targets exist for the air pathway, assign the calculated hazardous waste quantity score or a score of 100, whichever is greater; if there are no Actual Contamination Targets for the air pathway, assign the calculated HWQ score for sources available to air migration. <u>All sources must meet the minimum size requirement of 0.5 (HRS 6.1.2.1.2)</u></p>	<p>10*</p>																						
<p>10. Assign the highest air toxicity/mobility value from SI Table 21.</p> <p style="margin-left: 20px;"><u>MERCURY</u></p>	<p>2000</p>																						
<p>11. Multiply the air pathway toxicity/mobility and hazardous waste quantity scores. Assign the Waste Characteristics score from the table below:</p> <table border="1" style="margin: 10px auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="padding: 2px;">Product</th> <th style="padding: 2px;">WC Score</th> </tr> </thead> <tbody> <tr><td>0</td><td>0</td></tr> <tr><td>>0 to <10</td><td>1</td></tr> <tr><td>10 to <100</td><td>2</td></tr> <tr><td>100 to <1,000</td><td>3</td></tr> <tr><td>1,000 to <10,000</td><td>6</td></tr> <tr style="border: 2px solid black;"><td>10,000 to <1E+05</td><td>10</td></tr> <tr><td>1E+05 to <1E+06</td><td>18</td></tr> <tr><td>1E+06 to <1E+07</td><td>32</td></tr> <tr><td>1E+07 to <1E+08</td><td>56</td></tr> <tr><td>1E+08 or greater</td><td>100</td></tr> </tbody> </table>	Product	WC Score	0	0	>0 to <10	1	10 to <100	2	100 to <1,000	3	1,000 to <10,000	6	10,000 to <1E+05	10	1E+05 to <1E+06	18	1E+06 to <1E+07	32	1E+07 to <1E+08	56	1E+08 or greater	100	<p>WC = 10</p>
Product	WC Score																						
0	0																						
>0 to <10	1																						
10 to <100	2																						
100 to <1,000	3																						
1,000 to <10,000	6																						
10,000 to <1E+05	10																						
1E+05 to <1E+06	18																						
1E+06 to <1E+07	32																						
1E+07 to <1E+08	56																						
1E+08 or greater	100																						

AIR PATHWAY SCORE:

$$\frac{LA \cdot LE \cdot T \cdot WC}{82,500}$$

2.06

(maximum of 100)

10* ALTHOUGH THE SITE DOESN'T MEET MINIMUM SIZE REQUIREMENTS, 10 WAS USED AS WORST-CASE SCENARIO.

SITE SCORE CALCULATION		S	S ²
GROUND WATER PATHWAY SCORE (S _{GW})		1.47	2.16
SURFACE WATER PATHWAY SCORE (S _{SW})		9.39	88.17
SOIL EXPOSURE (S _S)		0.60	0.36
AIR PATHWAY SCORE (S _A)		2.07	4.28
SITE SCORE $\sqrt{\frac{S_{GW}^2 + S_{SW}^2 + S_S^2 + S_A^2}{4}} =$			4.87

COMMENTS

U . S . E P A R E G I O N I V


SDMS

Unscannable Material Target Sheet

DocID: 84879 Site ID: GAD003913159

Site Name: James River - Norwalk Site

Nature of Material:

Map: 

Computer Disks: _____

Photos: _____

CD-ROM: _____

Blueprints: _____

Oversized Report: _____

Slides: _____

Log Book: _____

Other (describe): _____

Amount of material: 1

Please contact the appropriate Records Center to view the material.

STUDY PLAN
AMERICAN CAN COMPANY
NEWNAN, COWETA COUNTY, GEORGIA
FEBRUARY 1985
ESD #85-121 -
ACCT. #5TFA04DCZZ

INTRODUCTION

The U. S. Environmental Protection Agency (EPA), Region IV, Environmental Services Division (ESD), Hazardous Waste Section (HWS) will conduct a site screening investigation at the James River Corporation's (Formerly American Can Company) off-set platemaking operation, located in Newnan, Coweta County, Georgia during the week of February 18, 1985. This investigation was requested by the US-EPA, Waste Management Division, Residuals Management Branch, Investigation and Compliance Section (ICS).

BACKGROUND

During the period March 1975 - June 1980, American Can Company disposed of waste from an off-set platemaking operation in a five leg, drainfield on their plant property. This drainfield was similar in construction to domestic septic tank system drainfields. The drainfield was designed for a maximum flow of 5,000 gal/day, although the maximum flow received was only 1,500 gal/day. Of this 1,500 gal/day, 15 gal/day was reported to be waste material and the remainder was washwater. The total amount of waste material which was disposed of in the drainfield is estimated at 21,600 gal.

The drainfield consisted of five 100 foot long, four inch diameter PVC laterals fed from a common distribution box. The drainfield measured 52 feet across the laterals giving a surface area of 5,200 square feet. It is located on the knoll of a hill approximately 50 to 100 feet from a stream. Between the drainfield and the stream is an approximately 30 foot bluff. The waste material is reported to have contained cyanide, arsenic, mercury, chromium, copper, lead, and phenols.

SCOPE

The site screening investigation at the American Can Company site will be limited to an evaluation of contaminate concentrations at the site and contaminate migration from the site via surface waters and leachate streams. It is anticipated that no potable well water samples will be collected during this investigation.

OBJECTIVES

The objectives of the American Can Company site screening investigation are:

- 1) to determine if the soil in the drainfield area is contaminated, and if so describe the location and concentration of the contaminants present,
- 2) to locate and sample any leachate streams originating from the plant site, and
- 3) to gather background information on the site.

METHODOLOGY

All sampling will be conducted in accordance with the Water Surveillance Branch Standard Operating Procedures and Quality Assurance Manual (Draft, August, 1980). all laboratory analyses will be performed in accordance with the Analytical Support Branch Operations and Quality Control Manual (April, 1982) or as specified by the existing U. S. Environmental Protection Agency procedures and protocols for contract laboratories.

The estimated number of samples and parameter coverage are shown in Table 1. Field personnel will be responsible for the final selection of the sampling sites which could have an impact on the number and types of samples to be collected.

Any soil samples, leachate stream, surface water, and well water samples will be collected by the sampling team by working from the non-contaminated areas toward the suspected contaminated areas. It is anticipated that a total of five soil samples (including a composite of a single auger hole into the drainfield material), two sediment samples, two surface water samples and two leachate samples will be collected during the site screening investigation. All samples collected will be analyzed for extractable organics (including pesticides), metals (including mercury), volatile organic compounds, and cyanides.

SAFETY

The field investigation will be conducted in accordance with the Region IV, Field Health and Safety Manual, Category I, Personnel Protection Level D (or equivalent). During the site reconnaissance, the project leader may require the sampling personnel to survey the site with the photoionization detector. If needed, sampling personnel will have available Personnel Protection Level C safety equipment and clothing. Safety glasses, hard hats, and steel toed boots will be worn when specified by the project leader. The sampling team will be provided with a first aid kit. The name, location, and phone numbers of the area hospital, fire department, and rescue squad will be obtained before beginning the investigation.

LOGISTICS

Personnel

William Bokey - Environmental Engineer, Project Leader
William Cosgrove - Environmental Engineer
William Barry - Environmental Engineer

Schedule

Feb. 19	- Travel to Cordele, Georgia and begin sampling at Gold Kist.
Feb. 20	- Finish sampling at Gold Kist and travel to Newnan, Georgia.
Feb. 21	- Sample at American Can Company and return to Athens, Georgia.
Feb. 22	- Ship samples to contract lab.
Apr 19	- Analytical data reported by contract laboratory.
May 17	- Draft report transmitted for peer review.
May 31	- Peer review comments received.
June 14	- Final report issued.

Resource Estimates

See table 2.

TABLE 1
ESTIMATED NUMBER OF SAMPLES/PARAMETER COVERAGE
AMERICAN CAN COMPANY
NEWNAN, GEORGIA

<u>STATION</u>	<u>SAMPLE TYPE</u>	<u>NUMBER OF SAMPLES</u>	<u>EXT. ORG. PESTICIDES</u>	<u>VOLATILE ORGANICS</u>	<u>METALS/ MERCURY</u>	<u>CYANIDES</u>	<u>pH</u>	<u>CONDUCTIVITY</u>
Drainfield (Specified locations)	Soil	5	5	5	5	5	-	-
Surface Water Drainage Areas	Sediment	2	2	2	2	2	-	-
"	Water	2	2	2	2	2	*	*
"	Leachate	2	2	2	2	2	-	-

*Determined in field

TABLE 2
RESOURCE ESTIMATE

<u>STUDY ELEMENT</u>	<u>MAN-DAYS</u>	<u>COST</u>
Study Planning and Preparation	9	\$1,800
Field Work and Sampling	6	\$1,200
Laboratory Support	**	**
Reporting and Follow-up	9	\$1,800
Travel	<u>24</u>	<u>\$450</u> \$5,250

** Contract lab, not estimated



JAMES RIVER CORPORATION

PO Box 2260, Greenwich, CT 06830

THERESE E. SATHUE
Manager
Environmental Affairs
Operations Technology
(203) 552-2181

January 7, 1983

Mr. John D. Taylor, Jr.
Program Manager
Industrial and Hazardous
Waste Management Program
Department of Natural Resources
Environmental Protection Division
270 Washington Street, S.W.
Atlanta, GA 30334

RE: JAMES RIVER CORPORATION
Sprayberry Road
Newnan, Georgia 30264
CERCLA 103(c) Notification

Dear Mr. Taylor:

Your letter of December 9, 1982 requested additional information regarding the on-site drainfield reported to EPA on June 6, 1981.

The drainfield is a five-leg Class A sand filter system with the approximate dimensions of 100 feet by 58 feet and a design capacity of 5,000 gallons/day. It is located in the northeast section of our property and surrounded by mostly wooded areas. Attachment One consists of three drawings pertaining to the drainfield's location and design.

The drainfield was utilized from March, 1975 through June, 1980. Until 1979, it is estimated that the drainfield received a maximum volume of 1500 gallons/day; e.g., water mixed with 15 gallons/day of waste. During 1979 and 1980, the volume declined to a maximum of 1000 gallons/day.

Mr. John D. Taylor, Jr.
Page 2
January 7, 1983

The waste was generated from a platemaking operation using the following solution:

<u>Solution</u>	<u>Estimated Yearly Amount</u>
Potassium Bichromate Solution	500 gallons
Deep Etch Developing Solution	1000 gallons
Aluminum Etch PT	800 galons
Copper Solution (98% Aluminum, 2% Copper)	1000 gallons
A Developer	30 gallons
B Developer	30 gallons
A Fixer	125 gallons
B Fixer	12 gallons
Acetic Acid	6 gallons
Mercuric Chloride	5 ounces
Potassium Ferricyanide	5 ounces

Other information on the waste constituents consists of two analyses (See Attachment Two).

The above data represent our best available information pertaining to this subject.

Very truly yours,

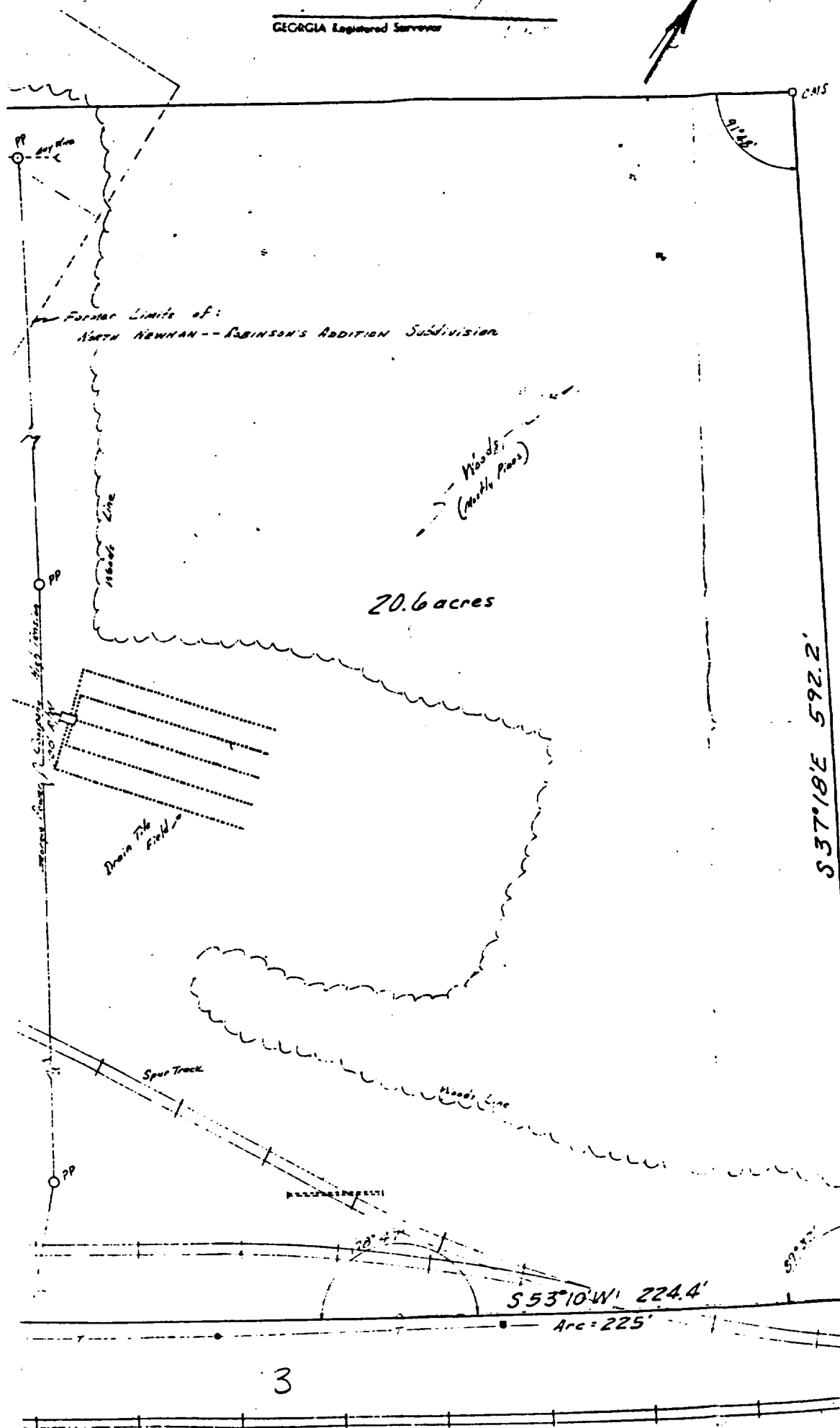
JAMES RIVER CORPORATION

Therese E. Sathue

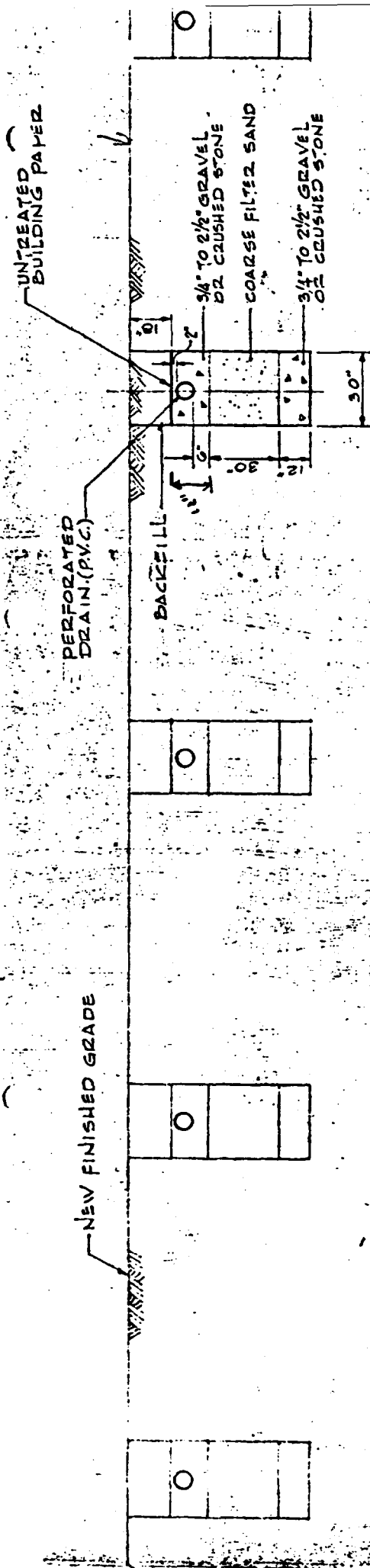
Therese Sathue

TS/pah
Attachments

GEORGIA Registered Surveyor

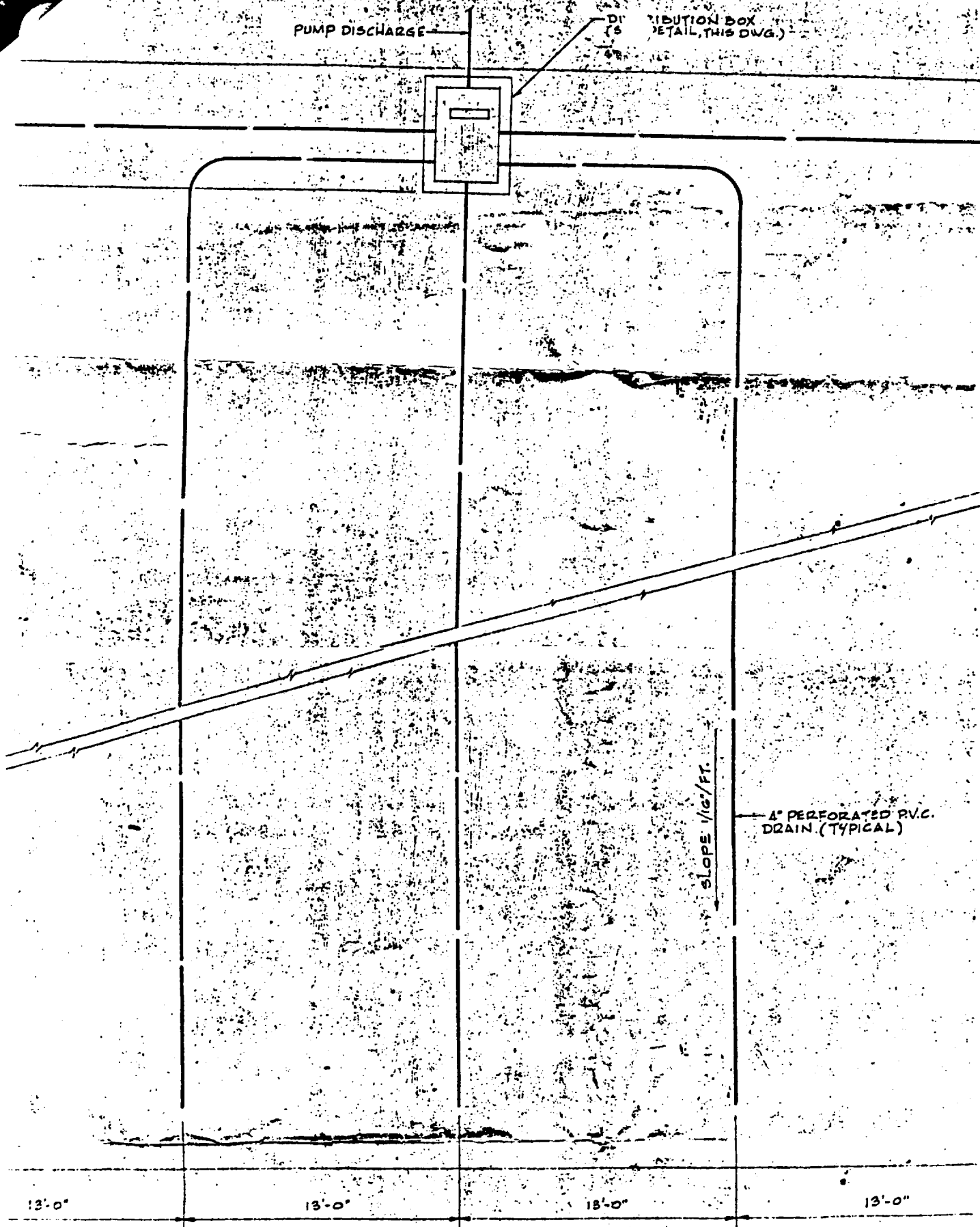


ATTACHMENT ONE



SECTION THRU TILE FIELD

SCALE = 1/4" = 1'-0"



PLAN OF TILE FIELD

ATTACHMENT ONE

Issued: April 26, 1971.
Our Report No. 1409 A
Your Purchase Order No. 540-448
Dated: 3/24/71.

To: American Can Company
Newnan, Georgia 30263.

Sample	1(WHI)	2(DEV)	3(SOAK)	4(DRA)
pH	7.8	1.1	7.5	3.2
Hexavalent Chromium	4420	< 0.02	7.74	< 0.02
Copper		5640		25.6
Lead	1.43	13.1	< 0.05	0.86
Arsenic	1.47	66.2	< 1.0	< 1.0
Hexane-soluble, % of which:			1.0	2.0
Grease, %			100	2
Hydrocarbons, %			None	98

Note: On re-dissolving of hexane-solubles, it was found that sample 4 would not dissolve completely in n-hexane; small parts of the material must have polymerized and become insoluble. The percentage of these insolubles of blueish color residue is 0.01.

ATTACHMENT TWO



DUNN LABORATORIES, INC.
CHEMISTS AND CHEMICAL ENGINEERS
717 EDGEHILL AVENUE, N. W. - ATLANTA, GEORGIA 30318

878-6159
CODE 404

November 14, 1979

American Can Company
P.O. Box 489
Sprayberry Road
Newnan, Georgia 30263

Attention: Dean Hilmer

Samples: Water received 11/1/79

Lab. Nos.: 37758 Plate Room Waste
37759 Chilled Water

CERTIFICATE OF ANALYSIS

37758

Cadmium mg/l	less than	0.02
Chromium, mg/l		24.2
Lead, mg/l	less than	0.2
Nickel, mg/l	less than	0.1
Zinc, mg/l		782
Silver, mg/l	less than	0.06
Copper, mg/l		0.57
Strontium, mg/l		2.1
Mercury, mg/l	less than	0.001

37759

Total Bacteria, colonier/100ml	1120
Total Coliform colonies/100ml	310

Respectfully submitted,

DUNN LABORATORIES, INC.

APPROVED:

Grover Dunn
Grover Dunn, P.E.

WVG/ll

William W. Gardiner
William W. Gardiner
Laboratory Manager, Chemist

ATTACHMENT TWO

Kem Reliford

3

FIELD INSPECTION OF:

JAMES RIVER CORPORATION
PAPERBOARD PACKAGING GROUP
FORMERLY AMERICAN CAN COMPANY
SPRAWBERRY ROAD
NEWMAN, COQUITA CO., GA
MARCH 11, 1995

INSPECTED BY: KEM RELIFORDSITE SIZE: ~20 ACRESFACILITY STATUS: IN OPERATION

OF WORKERS: JUDGING FROM SIZE OF AVAILABLE
PARKING 100 - 120. (SITE IS FENCED
OFF).

NEAREST RESIDENCE: WITHIN 130' OF SOUTHEAST FENCE
POST.

SITE DRAINAGE CHARACTERISTICS: DRAINAGE DITCHES
SURROUND THE FACILITY AND ~~DRAIN~~^{OR} DRAIN TO
THE NORTH OF THE FACILITY INTO A LARGER DRAINAGE
DITCH.

SITE ACCESSIBILITY: SITE SURROUNDED BY
8' BARBED WIRE FENCE.

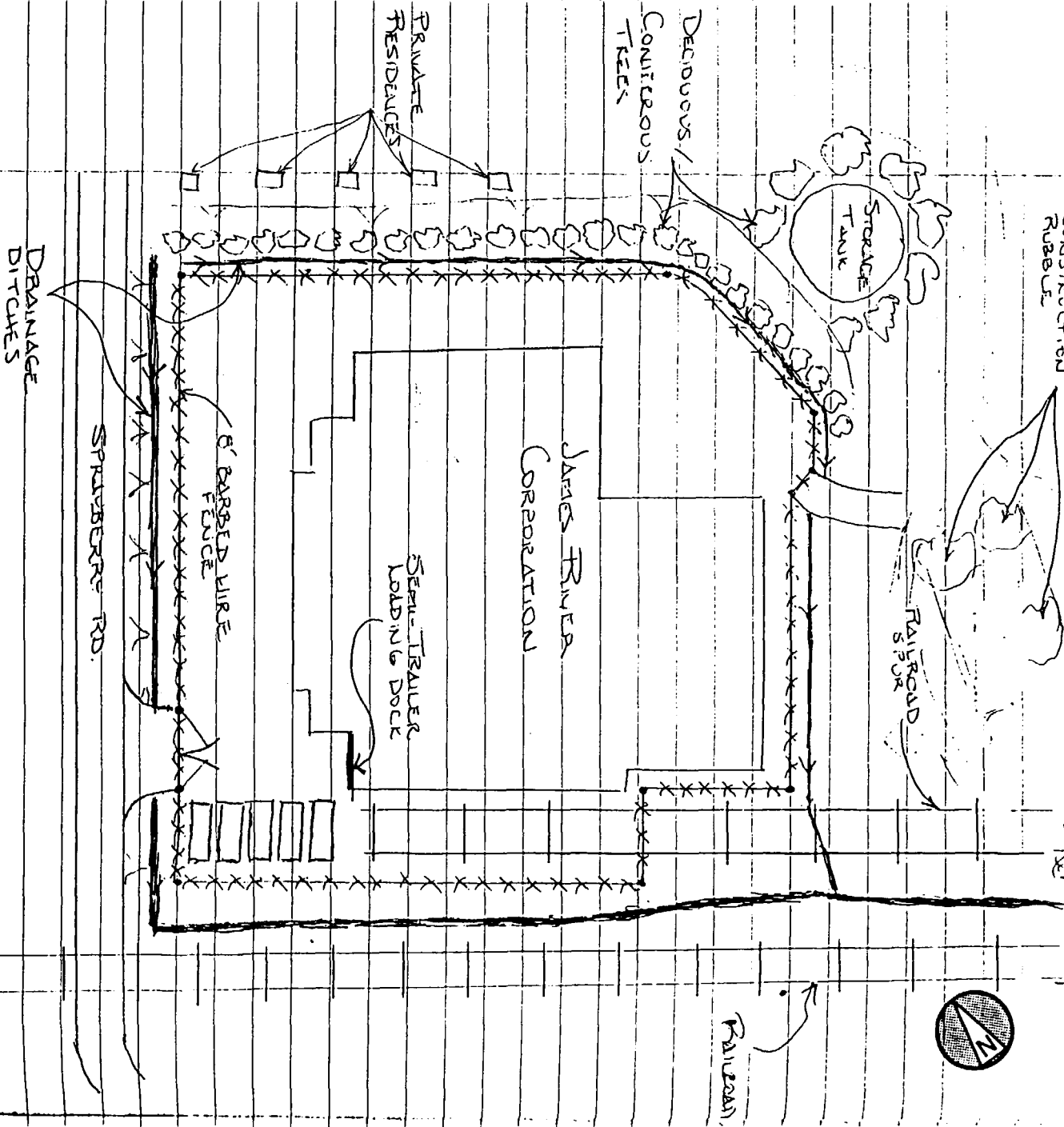
OF WELLS ON SITE: NONE NOTED.

- ACTIVITIES AT JAMES RIVER CORPORATION ARE
CONCEALED WITHIN THE BUILDING ON SITE.
- AREAS WITHIN THE FENCED COMPOUND AREA ARE
ALL PAVED OR CONCRETED
- THE AERATION AREA EAST OF THE SITE HAS BEEN
TAKEN OVER BY VEGETATION, AND HAS SCATTERED
AREAS OF CONSTRUCTION DEBRIS. VEGETATION DID
NOT APPEAR TO BE STRESSED.
- WATER PURVEYOR INFORMATION CAN BE RECEIVED FROM
THE CITY OF NEWMAN CHAMBER OF COMMERCE.

12

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED
DATE 08-11-2010 BY 60322 UCBA/PROCEEDING NORTH

2021-11-11



BLACK & VEATCH Waste Science, Inc.

TELEPHONE MEMORANDUM

James River Norwalk Site
Newnan Water Supply #1

BVWS Project 52012.583

April 5, 1995

To: Larry Hand
Company: Newnan Water Department
Phone No.: 404 253-4925

Recorded by: RD Brockhaus *RB*

I can provide information on the local water system.

The local water system is a combination of City and County Utilities. The water system uses two surface water intake locations; one on Line Creek east of town and another on White Oak Creek. The City has about 6200 connections. The County has a similar number.

For further information call Ricky McDaniel at 253-5516 for a CAD map of the City service area.

Call Edward Whitlock at 254-3710 for more information on the County

**COWETA COUNTY
WATER AND SEWER DEPARTMENT**

230 East Newnan Road
Newnan, Georgia 30263
(404) 254-3710 - Fax: (404) 304-0707

RECEIVED
APR 24 1995

April 18, 1995

MEMO

To: Mr. Robert D. Brockhaus

From: Mr. Edward A. Whitlock

Discussion:

Below please find the answers to the questions in your recent letter.

1. The service area boundaries is a 5 mile radius.
2. There are approximately 4000 connections.
3. The location of groundwater wells or surface water intakes are highlighted in yellow.

If you have any further questions, please call.

SDMS

Site Name: James River - Norwalk Site

Nature of Material:

Map:

Computer Disks: _____

Photos: _____

CD-ROM:

Blueprints: _____

Oversized Report:

Slides:

Log Book:

Other (describe): _____

Amount of material: _____

Please contact the appropriate Records Center to view the material.

BLACK & VEATCH Waste Science, Inc.

TELEPHONE MEMORANDUM

James River Norwalk Site
Newnan Water Supply #2

BVWS Project 52012.583
May 1, 1995

To: Larry Hand
Company: Newnan Water Department
Phone No.: 404 253-4925

Recorded by: RD Brockhaus

ROB

I'll try and provide you with some clarifications on the local water systems.

The City of Newnan has 2 surface water intakes; 6 miles east on White Oak Creek, and 11 miles east on Line Creek near the county line. The water is pumped to Newnan Waterworks Lakes and filtered prior to distribution.

There is a City ordinance prohibiting drilling a well in the city limits, but the county has lots of people on wells where the water lines don't run.

The county has a pumping station west of town on Wahoo Creek, but they don't use it. It is easier for them to keep it than to go through the process of permitting it again in the future.

U . S . E P A R E G I O N I V

SDMS

Unscannable Material Target Sheet

DocID: 84879 Site ID: GAD003913159

Site Name: James River - Norwalk Site

Nature of Material:

Map: ✓

Computer Disks: _____

Photos: _____

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Blueprints: _____

Oversized Report: _____

Slides: _____

Log Book: _____

Other (describe): _____

Amount of material: 1

Please contact the appropriate Records Center to view the material.

Reference #9

1990 CPH-1-12

**1990 Census of
Population and Housing
Summary Population and
Housing Characteristics
Georgia**

Issued August 1991



**U.S. Department of Commerce
Robert A. Mosbacher, Secretary
Rockwell A. Schnabel, Deputy Secretary**

**Economics and Statistics Administration
Michael R. Darby, Under Secretary
for Economic Affairs and Administrator**

**BUREAU OF THE CENSUS
Barbara Everitt Bryant, Director**

Table 6. Household, Family, and Group Quarters Characteristics: 1990

(For definitions of terms and meanings of symbols, see text)

State County Place and (In Selected States) County Subdivision	Persons in households		All house- holds		Family households			Nonfamily households				Persons per—		Persons in group quarters		
					Total	Married- couple family	Female house- holder, no husband present	Total	Householder living alone		Household	Family	Total	Insti- tutional persons	Other per- sons in group quarters	
									Total	65 years and over						
																Total
The State	6 304 583	2 366 615	1 713 072	1 306 756	329 641	653 543	537 702	185 027	149 417	2.66	3.16	173 633	87 266	86 367		
COUNTY																
Appling County	15 580	5 834	4 275	3 423	687	1 559	1 433	689	535	2 67	3 21	164	164	-		
Atkinson County	6 209	2 210	1 647	1 299	268	563	517	282	229	2 81	3 33	4	4	-		
Bacon County	9 436	3 442	2 645	2 000	539	797	742	376	301	2 74	3 17	130	121	9		
Baker County	3 610	1 300	949	666	220	351	326	174	148	2 78	3 33	5	5	-		
Baldwin County	32 270	12 165	8 735	6 095	2 183	3 430	2 770	1 007	815	2 65	3 14	7 260	6 515	745		
Banks County	10 292	3 775	2 973	2 563	283	802	724	353	281	2 73	3 13	16	16	-		
Barrow County	29 489	10 676	8 361	6 828	1 149	2 315	2 016	941	765	2 76	3 15	232	209	23		
Barrow County	55 485	20 091	15 665	12 828	2 149	4 426	3 861	1 605	1 326	2 76	3 17	426	336	90		
Ben Hill County	15 923	5 972	4 343	3 153	1 007	1 629	1 505	766	620	2 67	3 22	322	252	70		
Bernin County	13 859	5 149	3 950	3 208	569	1 199	1 105	530	427	2 69	3 13	294	108	186		
Bibb County	145 108	56 307	39 301	26 742	10 753	17 006	14 892	5 916	4 812	2 58	3 14	4 859	2 904	1 955		
Bleckley County	10 005	3 816	2 864	2 223	534	952	884	452	369	2 62	3 09	425	121	304		
Brantley County	11 069	3 811	3 109	2 598	384	702	629	278	217	2 90	3 25	8	8	-		
Brooks County	15 026	5 392	4 040	2 881	974	1 352	1 223	628	496	2 79	3 30	372	279	93		
Bryan County	15 301	5 070	4 226	3 514	554	844	735	305	218	3 02	3 34	137	-	137		
Bulloch County	39 458	14 984	9 685	7 449	1 782	5 299	3 488	1 293	1 042	2 63	3 15	3 667	607	3 060		
Burke County	20 363	7 037	5 288	3 482	1 543	1 749	1 573	738	564	2 89	3 41	216	216	-		
Butts County	13 557	4 696	3 697	2 822	686	999	872	408	308	2 89	3 31	1 769	1 653	116		
Calhoun County	4 916	1 794	1 269	837	366	525	491	292	234	2 74	3 36	97	97	-		
Camden County	27 328	9 459	7 472	6 152	1 003	1 987	1 609	415	311	2 89	3 28	2 839	130	2 709		
Candler County	7 449	2 828	2 042	1 536	415	786	717	361	286	2 63	3 17	295	295	-		
Carroll County	68 725	25 370	18 969	15 272	2 958	6 401	5 361	2 106	1 744	2 71	3 16	2 697	758	1 939		
Catoosa County	42 109	15 745	12 366	10 301	1 621	3 379	3 033	1 306	1 096	2 67	3 06	355	305	50		
Charlton County	8 384	2 911	2 257	1 748	407	654	573	249	190	2 88	3 32	112	112	-		
Chatham County	209 677	81 111	56 560	40 929	12 997	24 551	21 036	8 128	6 444	2 59	3 14	7 258	3 936	3 322		
Chattahoochee County	10 616	2 884	2 637	2 370	214	247	216	62	47	3 68	3 89	6 318	70	6 248		
Chattanooga County	22 059	8 467	6 393	5 041	1 070	2 074	1 915	1 039	843	2 61	3 06	183	183	-		
Cherokee County	89 441	31 309	25 760	22 476	2 324	5 549	4 415	1 430	1 152	2 86	3 16	763	436	327		
Clarke County	79 604	33 170	18 182	12 864	4 401	14 988	9 547	2 327	1 868	2 40	3 02	7 990	934	7 056		
Clay County	3 287	1 210	874	556	258	336	318	182	138	2 72	3 30	77	74	3		
Clayton County	180 489	65 523	48 734	37 003	9 216	16 789	13 035	2 392	1 935	2 75	3 19	1 563	1 246	317		
Clinch County	6 034	2 173	1 655	1 257	313	518	476	208	170	2 78	3 25	126	96	30		
Cobb County	444 691	171 288	120 113	99 966	15 518	51 175	38 537	6 826	5 634	2 60	3 10	3 054	1 978	1 076		
Coffee County	29 015	10 541	7 981	6 025	1 614	2 560	2 319	1 038	841	2 75	3 22	577	237	340		
Colquitt County	34 937	12 980	9 736	7 242	2 082	3 244	2 964	1 582	1 299	2 69	3 16	1 708	543	1 165		
Columbia County	64 929	21 841	18 315	15 649	2 054	3 526	2 939	832	661	2 97	3 28	1 102	948	154		
Cook County	13 172	4 825	3 607	2 789	649	1 218	1 116	589	489	2 73	3 22	284	128	156		
Coweta County	53 381	18 930	15 020	11 907	2 482	3 910	3 394	1 449	1 186	2 82	3 20	472	456	16		
Crawford County	8 809	3 069	2 412	1 896	394	657	577	238	178	2 87	3 29	182	108	74		
Crisp County	19 599	7 287	5 300	3 595	1 491	1 987	1 808	678	717	2 69	3 23	417	406	4		
Dade County	12 563	4 661	3 735	3 170	429	926	856	399	298	2 70	3 06	584	209	375		
Dawson County	9 377	3 360	2 734	2 357	266	626	536	186	151	2 79	3 12	52	29	22		
Decatur County	24 748	8 962	6 735	4 743	1 634	2 287	2 082	1 028	819	2 76	3 27	763	446	317		
DeKalb County	535 454	208 690	137 603	98 941	31 277	7 087	52 645	11 728	9 789	2 57	3 12	10 383	6 283	4 100		
Dodge County	16 627	6 387	4 687	3 550	952	1 700	1 609	844	684	2 60	3 12	980	980	-		
Dooly County	9 730	3 557	2 582	1 779	693	975	913	509	413	2 74	3 31	171	143	28		
Dougherty County	93 017	34 163	25 101	16 535	7 500	9 062	7 966	2 767	2 224	2 72	3 24	3 294	1 156	2 138		
Douglas County	70 334	24 277	19 739	16 547	2 415	4 538	3 643	1 107	887	2 90	3 22	786	664	122		
Early County	11 649	4 263	3 113	2 207	740	1 150	1 064	604	475	2 73	3 29	205	205	-		
Echols County	2 319	816	654	548	78	162	153	63	48	2 84	3 26	15	-	15		
Effingham County	25 636	8 759	7 149	5 921	928	1 610	1 422	560	439	2 93	3 28	51	51	-		
Elbert County	18 634	7 115	5 314	4 078	1 008	1 801	1 680	883	719	2 62	3 10	315	263	52		
Emanuel County	20 210	7 420	5 501	4 069	1 205	1 919	1 799	937	740	2 72	3 25	336	326	10		
Evans County	8 374	3 144	2 284	1 671	514	860	781	391	300	2 66	3 19	350	319	31		
Fannin County	15 863	6 334	4 844	4 126	528	1 490	1 401	753	590	2 50	2 92	129	120	9		
Fayette County	62 218	21 054	18 018	16 110	1 439	3 036	2 640	1 001	826	2 96	3 23	197	197	-		
Floyd County	77 939	30 518	22 518	17 744	3 852	8 000	7 203	3 506	2 891	2 55	3 02	3 312	1 657	1 655		
Forsyth County	43 792	15 938	12 787	11 164	1 113	3 151	2 590	964	775	2 75	3 07	291	276	15		
Franklin County	16 286	6 365	4 787	3 960	629	1 578	1 480	776	604	2 56	3 02	364	166	198		
Fulton County	626 974	257 140	155 887	99 206	47 519	101 253	79 746	21 475	17 301	2 44	3 11	21 977	8 405	13 572		
Gilmer County	13 179	5 072	3 940	3 352	454	1 132	1 035	543	437	2 60	2 99	189	189	-		
Glascock County	2 243	867	649	541	84	218	196	98	72	2 59	3 04	114	114	-		
Glynn County	61 437	23 947	17 308	13 214	3 345	6 639	5 647	2 319	1 840	2 57	3 04	1 059	645	414		
Gordon County	34 749	12 778	9 939	8 238	1 320	2 839	2 530	1 116	917	2 72	3 13	323	322	1		
Grady County	20 001	7 354	5 571	4 218	1 116	1 783	1 638	884	726	2 72	3 19	278	242	36		
Greene County	11 663	4 083	3 012	2 058	791	1 071	974	503	385	2 86	3 42	130	107	23		
Gwinnett County	351 247	126 971	96 396	82 398	10 481	30 575	22 501	3 637	3 035	2 77	3 18	1 663	1 559	104		
Habersham County	25 817	9 966	7 672	6 525	846	2 294										

Table 6. Household, Family, and Group Quarters Characteristics: 1990—Con.

(For definitions of terms and meanings of symbols see text)

State County Place and [In Selected States] County Subdivision	Persons in households	All house- holds	Family households			Nonfamily households				Persons per—		Persons in group quarters		
			Total	Married- couple family	Female house- holder no husband present	Total	Householder living alone		Household	Family	Total	Institu- tionalized persons	Other per- sons in group quarters	
							Total	65 years and over						
														Total
COUNTY—Con.														
Long County	6 119	2 196	1 683	1 383	218	513	447	185	136	2 79	3 22	83	4	79
Lowndes County	71 652	26 311	19 123	14 300	4 823	7 188	5 744	2 395	1 561	2 72	3 22	4 329	1 814	2 515
Lumpkin County	13 318	4 976	3 872	3 262	438	1 104	962	370	283	2 68	3 07	1 255	156	1 099
McDuffie County	19 862	7 270	5 508	3 985	1 286	1 762	1 558	676	539	2 73	3 19	257	232	25
McIntosh County	8 622	3 186	2 371	1 689	540	815	730	349	246	2 71	3 19	12	12	—
Marion County	12 826	4 388	3 322	2 099	1 046	1 066	991	513	412	2 92	3 46	288	288	—
Madison County	20 902	7 740	6 061	5 075	749	1 679	1 459	677	559	2 70	3 09	148	109	39
Marion County	5 512	1 962	1 524	1 132	317	438	392	203	166	2 81	3 22	78	78	—
Meriwether County	21 893	7 637	5 800	4 122	1 363	1 837	1 685	838	676	2 87	3 38	518	341	177
Milledgeville	6 184	2 336	1 741	1 334	319	595	554	316	250	2 65	3 14	96	96	—
Mitchell County	19 986	6 798	5 254	3 533	1 457	1 544	1 414	759	632	2 94	3 42	289	212	77
Monroe County	16 509	5 838	4 547	3 549	800	1 291	1 130	477	374	2 83	3 25	604	599	5
Montgomery County	6 714	2 493	1 842	1 432	323	651	599	313	235	2 69	3 20	449	213	236
Morgan County	12 705	4 399	3 442	2 588	681	1 957	1 854	417	329	2 89	3 32	178	158	20
Murray County	25 980	9 363	7 499	6 238	891	1 864	1 628	606	488	2 77	3 14	167	161	6
Muscogee County	171 700	65 858	47 235	33 380	11 803	18 623	16 122	5 847	4 716	2 61	3 12	7 578	2 963	4 615
Newtown County	41 040	14 401	11 337	8 908	1 915	3 064	2 633	1 210	997	2 85	3 25	768	318	450
Oconee County	17 474	6 156	4 960	4 253	555	1 196	987	394	329	2 84	3 19	144	140	4
Oglethorpe County	9 681	3 581	2 748	2 168	348	833	737	317	240	2 70	3 14	82	82	—
Paulding County	41 289	14 326	11 999	10 350	1 216	2 327	1 964	772	598	2 88	3 17	322	309	13
Peach County	19 954	7 142	5 465	3 844	1 385	1 677	1 428	603	481	2 79	3 23	1 235	82	1 153
Pickens County	14 252	5 386	4 239	3 607	455	1 147	1 051	516	390	2 65	3 03	180	180	—
Pierce County	13 262	4 807	3 759	3 104	507	1 048	982	488	390	2 76	3 19	66	66	—
Pike County	10 100	3 526	2 824	2 385	317	702	647	321	255	2 86	3 26	124	124	—
Polk County	33 410	12 519	9 455	7 404	1 628	3 064	2 833	1 518	1 217	2 67	3 13	405	379	26
Pulaski County	7 986	3 098	2 185	1 584	504	913	842	432	348	2 58	3 15	122	122	—
Purman County	13 856	5 229	3 938	3 043	702	1 291	1 118	429	330	2 65	3 07	281	277	4
Quitman County	2 205	857	626	428	167	231	214	112	72	2 57	3 06	4	—	—
Rabun County	11 460	4 630	3 477	2 940	412	1 153	1 036	524	404	2 48	2 89	188	166	22
Randolph County	7 694	2 815	2 003	1 301	595	812	773	463	365	2 73	3 36	329	104	225
Richmond County	179 514	68 675	47 685	32 988	12 384	20 900	17 907	5 732	4 570	2 61	3 18	10 205	3 423	6 782
Rockdale County	53 546	18 337	15 121	12 771	1 317	3 216	2 638	932	750	2 92	3 23	545	499	46
Savannah County	3 581	1 315	964	739	178	351	324	171	153	2 72	3 25	7	7	—
Screven County	13 613	5 048	3 698	2 660	965	1 350	1 238	618	500	2 70	3 23	229	204	25
Seminole County	8 420	3 137	2 336	1 729	518	801	747	410	325	2 68	3 19	590	98	492
Spalding County	53 613	19 426	14 901	11 214	3 222	4 525	3 974	1 771	1 267	2 76	3 18	844	838	6
Stephens County	22 688	8 949	6 633	5 453	958	2 316	2 131	1 285	987	2 54	3 00	569	90	479
Stewart County	5 543	1 982	1 439	921	425	543	505	280	213	2 80	3 40	111	111	—
Sumter County	28 811	10 484	7 610	5 034	2 275	2 874	2 544	1 087	865	2 75	3 30	1 417	771	646
Talbot County	6 517	2 345	1 765	1 188	473	580	543	263	199	2 78	3 28	7	7	—
Talbot County	1 915	727	492	344	119	235	230	142	114	2 63	3 32	—	—	—
Tattnall County	15 251	5 845	4 272	3 276	326	1 573	1 436	733	580	2 61	3 11	2 471	2 189	282
Taylor County	7 632	2 804	2 070	1 431	530	734	675	367	302	2 72	3 24	10	10	—
Telfair County	10 641	4 017	2 901	2 080	688	1 116	1 044	590	470	2 65	3 20	359	344	15
Terrell County	10 508	3 738	2 772	1 823	804	966	887	488	393	2 81	3 34	145	145	—
Thomas County	38 325	14 323	10 644	7 604	2 564	3 679	3 342	1 624	1 333	2 68	3 16	661	580	81
Tift County	33 450	12 184	9 101	6 801	1 911	3 083	2 724	1 197	978	2 75	3 23	1 548	385	1 163
Toombs County	23 652	8 804	6 386	4 751	1 353	2 418	2 179	973	778	2 69	3 23	420	388	32
Townsend County	6 362	2 812	2 056	1 815	183	756	712	367	285	2 26	2 69	392	78	314
Treutlen County	5 917	2 158	1 607	1 176	366	551	513	298	243	2 74	3 27	77	65	12
Troala County	54 500	20 371	14 980	11 053	3 292	5 391	4 771	2 231	1 827	2 68	3 18	1 036	711	325
Turner County	8 586	3 043	2 331	1 683	576	712	673	379	312	2 82	3 32	117	117	—
Twiggs County	9 650	3 296	2 570	1 896	553	726	665	291	222	2 93	3 39	156	151	5
Union County	11 769	4 709	3 653	3 182	355	1 056	980	535	406	2 50	2 88	224	221	3
Upson County	25 840	9 911	7 335	5 467	1 541	2 576	2 377	1 282	1 046	2 61	3 09	460	448	12
Walker County	57 524	21 697	16 887	13 896	2 336	4 810	4 355	2 111	1 758	2 65	3 05	816	806	10
Walton County	38 229	13 433	10 749	8 634	1 613	2 684	2 332	1 101	893	2 85	3 22	357	357	—
Ware County	33 788	13 046	9 416	7 068	1 945	3 630	3 311	1 624	1 317	2 59	3 12	1 683	1 593	90
Warren County	5 974	2 130	1 603	1 056	467	527	487	296	241	2 80	3 30	104	104	—
Washington County	18 789	6 739	4 985	3 396	1 330	1 754	1 606	776	624	2 79	3 32	323	311	12
Wayne County	21 761	7 922	6 113	4 803	1 053	1 809	1 670	783	506	2 75	3 19	595	582	13
Webster County	2 263	798	610	445	131	188	172	86	61	2 84	3 32	—	—	—
Wheeler County	4 817	1 786	1 331	1 028	235	455	441	273	225	2 70	3 21	86	65	21
White County	12 523	4 907	3 798	3 285	382	1 109	1 023	475	374	2 55	2 95	483	161	322
Whitfield County	71 808	26 859	20 506	16 611	2 940	6 353	5 455	1 995	1 633	2 67	3 08	654	571	83
Wilcox County	6 807	2 511	1 833	1 389	360	678	640	376	293	2 71	3 27	201	201	—
Wilkes County	10 511	4 022	2 932	2 132	646	1 090	1 008	566	415	2 61	3 12	86	86	—
Wilkinson County	10 183	3 619	2 755	2 032	616	864	788	352	274	2 81	3 31	45	45	—
Worth County	19 618	6 895	5 428	4 107	1 057	1 467	1 345	675	541	2 85	3 27	127	53	74
PLACE AND COUNTY SUBDIVISION														
Abbeville city	809	303	221	153	54	82	76	49	40	2 67	3 16	98	9	

REFERENCE CITATION:

U.S. Department of Commerce, Bureau of the Census, 1990 Census of Population and Housing: Summary Population and Housing Characteristics - Georgia, 1990 CPH-1-12 (Washington, D.C.: GPO, 1991),
excerpt, 3 pages.

BLACK & VEATCH Waste Science, Inc.

TELEPHONE MEMORANDUM

James River Norwalk Site
Coweta County Water Supply

BVWS Project 52012.583
April 5, 1995

To: Edward Whitlock
Company: Coweta County Water and Sewer Department
Phone No.: 404 254-3710

Recorded by: RD Brockhaus *RB*

Estimating the number of residences relying on groundwater is tough, especially since we keep adding connections all the time. The only way I can figure it out would be to work backwards. The county population is 65,000. County, city and smaller systems account for about 17,500 connections. The difference would be residents on groundwater.

Note:

Assuming 2.84 persons/connection, that equals 49,700 persons. The difference being 15,300 people on groundwater, or about 25 % of the county population.

GROUND-WATER DATA FOR GEORGIA, 1987

By C.N. Joiner, M.S. Reynolds, W.L. Stayton, and F.G. Boucher

U.S. GEOLOGICAL SURVEY

Open-File Report 88-323

Prepared in cooperation with the

GEORGIA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION
GEORGIA GEOLOGIC SURVEY



Doraville, Georgia

1988

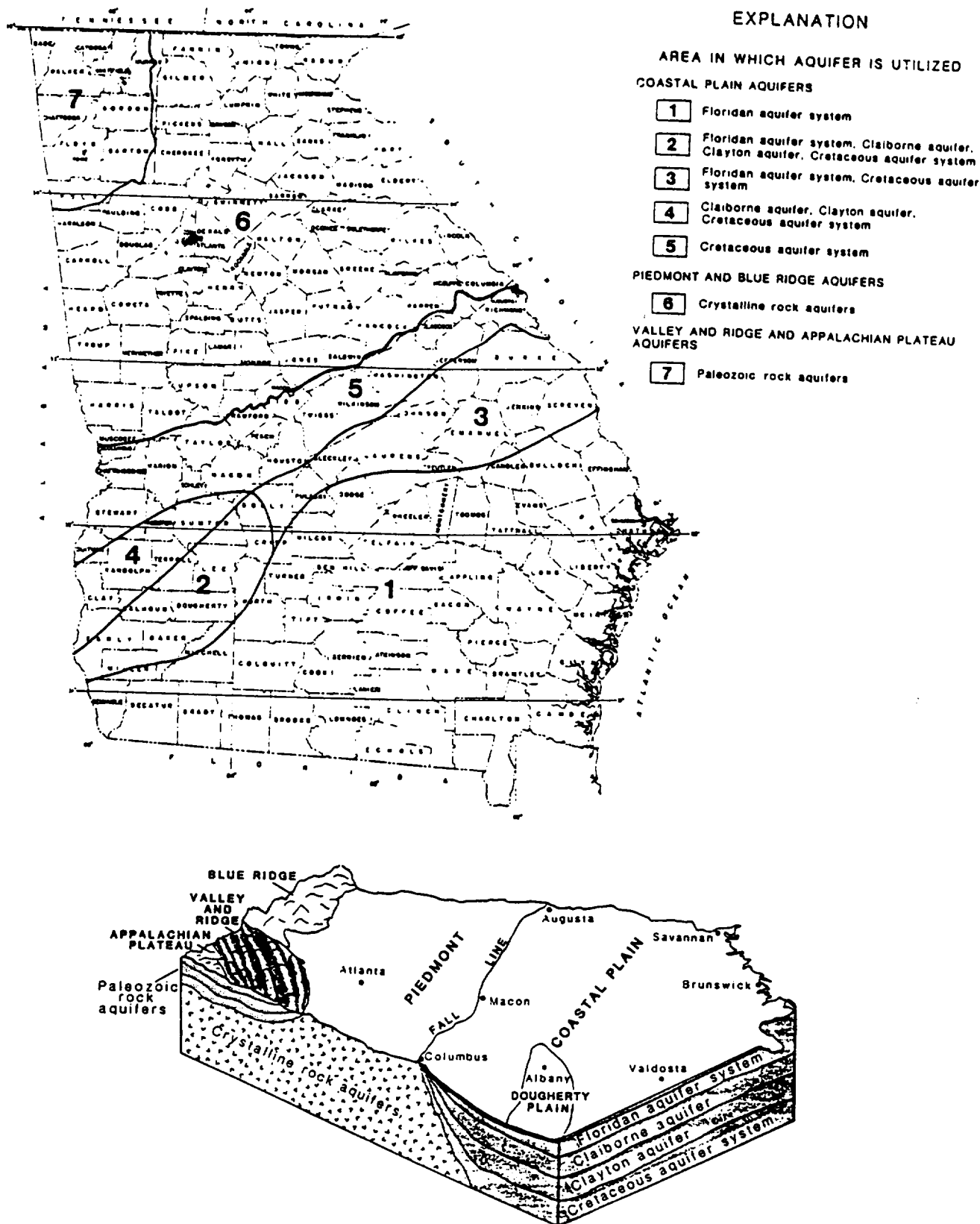


Figure 1.1-1.—Areas of utilization of major aquifers and block diagram showing major aquifers and physiographic provinces of Georgia.

2.2 Crystalline Rock Aquifers

Although individual crystalline rock aquifers are not laterally extensive; collectively they yielded an estimated 91 Mgal/d in 1985 (Turlington and others, 1987), primarily for rural supply. Ground-water storage occurs in unconsolidated material overlying the crystalline rock and in joints, fractures, and other types of secondary openings within the rock (Cressler and others, 1983).

Ground-water levels in the crystalline rock aquifers are affected mainly by precipitation and evapotranspiration. Rainfall in the area is heavy in winter and midsummer and relatively light in spring and fall. The driest season of the year is fall. Ground-water levels rise rapidly with the onset of late winter rains and reduced evapotranspiration, and generally reach their highest levels for the year in March or April. Increases in evapotranspiration and decreases in rainfall during the spring and early summer cause ground-water levels to decline. Heavy rainfall in midsummer results in small rises in ground-water levels, but a lack of recharge in the fall causes water levels to decline to the annual lows, which generally occur in October or November.

During 1987, the mean water levels at wells 10DD02 in Fulton County, 11FF04 in DeKalb County, and 19HH12 in Madison County were from 0.2 to 1.3 ft higher in 1987 than in 1986. By the end of March, water levels in the wells had recovered 1.5 to 4.8 ft from the record lows measured during the 1986 drought. However, a new record low was measured at well 10DD02 in early December. The decline was in response to local pumping at the end of 1987, and water levels were from about the same to 1.6 ft lower than at the end of 1986.

TELEPHONE MEMORANDUM

James River Norwalk Site
Newnan Water Supply #3

BVWS Project 52012.583

May 16, 1995

To: Larry Hand
Company: Newnan Water Department
Phone No.: 404 253-4925

Recorded by: RD Brockhaus *RD*

I'll try to provide more information on the local water systems.

To my knowledge there are no wellhead protection areas (WHPA) around Newnan.

There might be some irrigation wells in the area, but there really isn't much agriculture around here. There are some old pecan groves, but they generally aren't irrigated.

And as far as intakes on the Chatahoochee River, after Atlanta the next area that I know of is Lagrange, down in Troup County.

GROUND WATER
IN THE GREATER ATLANTA REGION,
GEORGIA

By

C. W. Cressler, C. J. Thurmond, and W. G. Hester

Georgia Department of Natural Resources

Joe D. Tanner, Commissioner

Environmental Protection Division

J. Leonard Ledbetter, Director

Georgia Geologic Survey

William H. McLemore, State Geologist

Prepared in cooperation with the

U.S. Geological Survey

Atlanta

1983

reprinted 1993

INFORMATION
CIRCULAR

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Table 9.--Record of wells in the Greater Atlanta Region.

Well No.	Owner	Water-bearing unit	Latitude and longitude	Yield (gal/min)	Depth (ft)	Casing		Date drilled	Driller	Elevation (ft)	Water level below land surface	
						depth (ft)	diam. (in.)				Static head (ft)	Pumping head (ft)
Coweta County												
6AA1	T. S. Powers Powers Crossroads	B	33°20'18" 84°58'47"	45	161	64	6	11/57	Virginia	840	20	30
6AA2	Sue Rickenbacker Rte. 2 (for C. T. Helton) Newnan	B	33°19'44" 84°55'12"	100	90	23	6	1977	Adams- Massey	780	—	—
6BB1	H. R. Meadows Rte. 1, Box 1825 Coggin Rd. Newnan	B	33°24'09" 84°56'28"	30	105	35	6	3/69	Virginia	860	5	20
6BB2	N. J. Wallace, Sr. Rte. 1, Box 2270 Welcome Rd. Newnan	B	33°23'08" 84°53'33"	50	145	69	6	10/75	Virginia	840	30	145
6BB3	Western High School Welcome Community Welcome	A	33°23'23" 84°53'20"	18	231	116	6	3/50	do.	870	40	100
6BB5	Jay Aver Rte. 1, Box 1995 Mt. Carmel Rd. Handy	A	33°24'38" 84°53'28"	50	120	40	6	12/77	do.	840	8	120
6BB6	M. C. Barber Murphy Rd. Newnan	B,A	33°25'21" 84°54'19"	25	205	—	—	9/77	Waller	780	—	—
6BB7	Mabel Stovall Welcome-Sargent Rd. Newnan	A	33°24'43" 84°53'19"	30	205	—	—	1/64	Virginia	770	15	140
6BB8	Georgia Power Co. Yates Plant Newnan	G	33°27'57" 84°54'24"	50+	378	34	—	5/71	Weisner	780	—	—
6BB9	do.	G	33°27'43" 84°53'59"	115	307	43	—	9/65	Virginia	740	—	—
6BB10	do.	B,G	33°27'40" 84°53'41"	100	146	42	—	5/71	do.	760	—	—
7AA1	Erle W. Fanning Rte. 4, Box 65 Beavers Rd. Newnan	A	33°16'52" 84°50'53"	60	490	50	6	9/67	Weisner	860	—	—
7AA2	Moreland School Moreland	A	33°17'00" 84°46'06"	55	228	83	—	10/41	Virginia	940	—	—
7AA3	do.	A	33°17'03" 84°46'06"	40	458	66	6	6/67	do.	940	40	210
7AA4	Westside School Newnan	A	33°22'27" 84°49'48"	65	302	113	6	11/54	do.	860	30	80
7AA5	Roy E. Knox Belt Rd. Newnan	A	33°22'12" 84°49'37"	50	136	19	6	6/58	do.	880	—	—
7AA7	Unity Baptist Church LaGrange St. Ext. Newnan	A	33°21'34" 84°49'34"	25	155	46	6	1963	do.	900	—	—

Table 9.—Record of wells in the Greater Atlanta Region—Continued

Well No.	Owner	Water-bearing unit	Latitude and longitude	Yield (gal/min)	Depth (ft)	Casing		Date drilled	Driller	Elevation (ft)	Water level below land surface	
						depth (ft)	diam. (in.)				Static head (ft)	Pumping head (ft)
Coweta County												
7AA8	City of Newnan Newnan Waterworks Newnan	A	33°21'16" 84°48'52"	90	400	--	--	1910	Hughes Spec. Well Drig. Co.	810	--	--
7AA9	do.	A	33°21'16" 84°48'48"	75	500	--	--	1941	Hughes	810	--	--
7AA10	do.	A	33°21'09" 84°48'47"	100	350	--	--	1914	do.	850	--	--
7AA11	do.	A	33°21'08" 84°48'43"	100	350	--	--	1914	do.	880	--	--
7AA12	Dr. J. B. Peniston 128 Woodbine Cir. Newnan	A	33°21'43" 84°48'12"	50	450	98	6	6/57	Virginia	950	10	30
7AA13	Coweta County Airport Newnan	A	33°18'46" 84°46'24"	35	205	77	6	1/66	do.	940	40	185
7AA14	Airport Spur Service I-85 & U.S. 29 Newnan	A	33°19'07" 84°46'39"	75	370	94	6	7/72	do.	960	--	--
7AA15	Standard Oil Station I-85 & U.S. 29 Newnan	A	33°19'33" 84°46'44"	50	248	69	6	2/72	do.	980	30	248
7AA16	Holiday Inn I-85 & U.S. 29 Newnan	A	33°19'41" 84°46'48"	100+	223	68	6	12/68	Weisner	970	--	--
7AA17	William Banks Banks Haven, Hwy. 29 Newnan	A	33°20'36" 84°47'03"	50	435	95	6	7/69	Virginia	930	22	210
7AA18	E. Newnan Water Co. Newnan	A	33°21'08" 84°46'53"	24	510	78	6	9/73	do.	960	--	--
7AA19	E. Newnan School Newnan	A	33°21'17" 84°46'40"	21	401	78	6	10/54	do.	920	35	160
7AA20	Harley Hanson & David Parrott 31 Sunrise Dr. Newnan	A	33°21'26" 84°46'04"	75	140	30	6	6/74	do.	950	--	--
7AA21	McDowell Brothers Pinehill Estates, 2 Newnan	A	33°21'47" 84°50'19"	60	217	65	--	1975	Adams- Massey	820	--	--
7AA22	do., 1	A	33°21'52" 84°50'10"	20	247	78	--	1974	do.	800	--	--
7BB1	Mike Edwards Rte. 1, Box 2660 Highway 34, South Newnan	A	33°22'42" 84°52'14"	40	120	27	6	1/78	Virginia	810	--	--
7BB2	Fred L. Schronder 16 Beech St. Newnan	A	33°23'17" 84°49'45"	150	255	65	6	12/73	do.	940	--	--
7BB3	J. W. Hughie 11 Beech St. Newnan	A	33°23'19" 84°49'41"	50	320	70	6	6/77	do.	890	--	--

Table 9.—Record of wells in the Greater Atlanta Region--Continued

Well No.	Owner	Water-bearing unit	Latitude and longitude	Yield (gal/min)	Depth (ft)	Casing		Date drilled	Driller	Elevation (ft)	Water level below land surface	
						depth (ft)	diam. (in.)				Static head (ft)	Pumping head (ft)
Coweta County												
7BB5	Arnall Mills Sargent	B	33°25'12" 84°51'21"	53	405	82	—	6/44	Virginia	820	—	—
7BB6	do.	B	33°25'01" 84°51'17"	69	675	—	—	1953	do.	840	—	—
7BB7	Arco Mills Highway 27, North Newnan	A	33°26'02" 84°52'08"	40	360	—	—	1927	do.	760	—	—
7BB8	do.	A	33°26'03" 84°52'07"	50	400	—	—	1932	do.	760	—	—
7BB9	do.	A	33°26'02" 84°52'03"	65	586	—	—	1940	do.	755	—	—
7BB10	do.	A	33°25'53" 84°52'05"	33	300	107	6	12/54	do.	760	40	146
7BB11	G. C. Watkins Box 185D, Brown Place Newnan	A	33°24'58" 84°48'54"	100	212	30	6	5/74	do.	830	—	—
7BB12	Windsor Estates (Lindsey Realty) Laurel Dr. Newnan	A	33°25'44" 84°49'07"	40	323	—	—	11/77	Waller	915	—	—
7BB13	Jerry Windom Country Club Rd. Newnan	A	33°25'44" 84°48'54"	75	390	—	—	9/77	do.	900	—	—
7BB14	Northside School Country Club Rd. Newnan	A	33°25'23" 84°47'47"	36	288	44	—	9/51	Virginia	920	55	73
7BB15	BPOE Club (Elks) Atlanta Hwy. (Hwy. 29) Newnan	A	33°23'51" 84°47'49"	124	265	72	6	6/59	do.	920	30	200
7BB16	Newnan House Motel & Resturant Highway 29 Newnan	A	33°24'08" 84°47'30"	80	270	71	6	11/75	do.	900	50	210
7BB17	City of Newnan Wahoo Creek Sewage Treatment Plant Highway 29 Newnan	A	33°24'11" 84°47'04"	63	371	28	6	12/74	do.	840	70	162
7BB18	V. J. Bruner 4 Redbud Trail Newnan	A	33°24'28" 84°46'51"	50	225	78	6	11/74	do.	880	—	—
7BB19	Thomas W. Parker 6 Redbud Trail Newnan	A	33°24'25" 84°46'51"	30	205	64	6	3/76	do.	860	—	—
7BB20	J. W. (Bill) Ozmore Lakehills Subdiv. 1 Dogwood Dr. Newnan	A	33°24'33" 84°46'42"	30	265	69	6	11/72	do.	880	—	—

Table 9.—Record of wells in the Greater Atlanta Region--Continued

Well No.	Owner	Water-bearing unit	Latitude and longitude	Yield (gal/min)	Depth (ft)	Casing		Date drilled	Driller	Elevation (ft)	Water level below land surface	
						depth (ft)	diam. (in.)				Static head (ft)	Pumping head (ft)
Covatta County												
7BB21	J. W. (Bill) Ozmore Lakehills Subdiv. 1 Dogwood Dr. Newnan (for G. E. Myers)	A	33°24'34" 84°46'40"	20	220	96	6	3/63	Virginia	875	—	—
7BB22	do. (for W. P. Warren)	E,A	33°24'37" 84°46'45"	20	220	53	6	4/63	do.	910	—	—
7BB24	Newnan County Club Highway 29 Newnan	E,A	33°25'09" 84°46'36"	60	500	124	6	10/48	do.	850	—	—
7BB25	J. W. Rainwater Rainwater Antiques Highway 29 Newnan	B	33°25'37" 84°45'38"	33	206	101	6	12/69	do.	940	—	—
7BB26	Kenneth Denney Rte. 2, Walt Carmichael Rd. Newnan	A	33°28'38" 84°50'23"	32	304	6	6	10/65	do.	770	—	—
7BB27	Roscoe Coalson Box 44, Roscoe Rd. Sargent	A	33°27'16" 84°49'19"	37	192	44	6	5/58	do.	900	57	109
7BB30	F. L. Smith, Sr. Rte. 2, Happy Valley Rd. Newnan (at residence of Tim Cole)	A	33°27'52" 84°45'24"	51	200	56	6	6/58	do.	900	—	—
7BB31	Madras School Highway 29, North Madras	A	33°26'07" 84°45'02"	34	295	75	6	10/65	do.	1,000	20	205
7BB32	Heritage Hills Subdiv. Highway 29, North Newnan	A	33°25'10" 84°46'26"	50	391	78	6	11/72	do.	960	90	391
7BB33	Howard Holcombe 11 Thomas Way Newnan	A	33°23'04" 84°29'56"	50	152	97	—	1974	Adams- Massey	880	—	—
7BB34	Dixie Hill Enterprises McDowell Brothers Wedgewood Subdiv., 2 Newnan	A	33°23'16" 84°49'58"	50	—	—	—	1977	do.	960	—	—
7BB35	do., 1	A	33°23'17" 84°50'10"	150	187	31	—	1977	do.	840	—	—
7BB36	Garnett H. Shirley 132 Temple Ave. Newnan	A	33°23'17" 84°49'46"	100	230	71	—	1972	do.	920	—	—
7BB37	William L. Bonnell Co. Subdivision, 4 Newnan	A	33°22'58" 84°49'08"	75	201	30	—	1958	do.	920	—	—
7BB38	William L. Bonnell Co. Newnan, 5	A	33°23'00" 84°49'07"	54	300	58.5	—	1958	do.	920	—	—
7BB39	William L. Bonnell Newnan	A	33°23'43" 84°48'02"	29	350	83.5	—	1958	do.	960	—	—

Table 9.—Record of wells in the Greater Atlanta Region--Continued

Well No.	Owner	Water-bearing unit	Latitude and longitude	Yield (gal/min)	Depth (ft)	Casing		Date drilled	Driller	Elevation (ft)	Water level below land surface	
						depth (ft)	diam. (in.)				Static head (ft)	Pumping head (ft)
Coweta County												
7BB40	Layton Brozell Construction Co. Skating Rink Newnan	A	33°24'01" 84°47'35"	25	260	65	—	1926	Adams-Massey	900	—	—
7BB42	Hickory Hollow Subdiv. (McDowell Bros.), 2	D	33°26'14" 84°50'15"	87	330	52	—	1976	—	900	—	—
7CC2	Mrs. T. L. Lang Rte. 2, Box 162 Starr Rd. Roscoe	B	33°30'07" 84°48'13"	35	159	57	6	10/77	Virginia	850	35	159
7Z1	City of Grantville Grantville	A	33°14'06" 84°50'12"	50	500	—	8	—	—	860	—	—
7Z2	do.	A	33°14'02" 84°50'13"	80	600	57	8	7/56	Virginia	850	—	—
7Z3	do.	A	33°13'59" 84°50'23"	50	550	—	—	—	—	880	—	—
7Z4	do.	A	33°14'16" 84°50'00"	85	500	—	8	—	—	880	—	—
7Z5	do.	A	33°14'09" 84°49'55"	27	650	47	8	7/62	Virginia	880	—	—
7Z8	Grantville Mills Grantville	A	33°14'18" 84°49'54"	27	700	—	—	1933	—	840	—	—
8AA1	Carl Sanders Hwy. 54 & Haynie Rd. Moreland	A	33°16'19" 84°42'49"	120	127	87	6	9/71	Weisner	880	—	—
8AA2	Larry Fulton Elders Mill Rd. Blackjack	A	33°15'49" 84°38'09"	80	200	33	6	1978	Askew-Morris	875	—	—
8AA3	Floyd Eppinette Elders Mill Rd. Senoia	A	33°15'29" 84°37'39"	42	501	22	6	2/56	Virginia	860	—	—
8AA4	William Milam Hinds Rd. Newnan	A	33°18'17" 84°42'45"	20	105	—	6	1/75	Waller	840	—	—
8AA5	F. D. Mann Moore Rd. Raymond	A	33°19'16" 84°42'48"	60	357	56	6	9/76	Virginia	845	20	350
8AA6	J. R. Schlicker Scoggin Rd. Raymond	A	33°19'19" 84°42'53"	50	138	—	6	—	Hale	835	—	—
8AA7	M. M. Benefield Rte. 3, Box 83C Raymond Highway Newnan	A	33°20'08" 84°44'28"	48	100	53	6	1/66	Virginia	880	40	50
8AA8	Felton Tidwell Rte. 3, Box 135 Highway 16 Newnan	A	33°20'12" 84°44'17"	30	140	41	6	4/65	do.	880	27	100

Table 9.—Record of wells in the Greater Atlanta Region--Continued

Well No.	Owner	Water-bearing unit	Latitude and longitude	Yield (gal/min)	Depth (ft)	Casing		Date drilled	Driller	Elevation (ft)	Water level below land surface	
						depth (ft)	diam. (in.)				Static head (ft)	Pumping head (ft)
Coweta County												
8AA9	City of Turin Turin	A	33°19'51" 84°38'41"	20	484	80	—	3/72	Waller	920	35	—
8AA10	Town of Turin P. O. Box 35 Turin	A	33°19'26" 84°38'00"	200	352	85	—	1976	Adams- Massey	900	—	—
8AA11	Paul Hope Hope Ranch, Odum Rd. Turin	H	33°19'48" 84°37'41"	50	305	—	—	9/77	Waller	900	—	—
8BB1	D. C. Spriggs Lower Fayetteville Rd. Newnan	B	33°22'38" 84°43'50"	20	123	45	6	10/76	Weisner	845	—	—
8BB2	Robert E. Lee Rte. 4, Box 273 Posey Rd. Newnan	B	33°25'51" 84°42'13"	60	190	87	6	5/74	Virginia	910	—	—
8BB3	Wm. M. Vineyard Lower Fayetteville Rd. Newnan	B	33°22'50" 84°40'15"	36	270	20	6	5/59	do.	920	25	50
8BB4	H. L. Willis Lassetter Rd. Sharpsburg	A	33°23'37" 84°39'31"	60	125	88	6	10/72	do.	885	—	—
8BB5	Harry Rivers Rte. 1, Shoal Creek Rd. Sharpsburg	A	33°24'01" 84°38'37"	40	144	—	—	11/73	Waller	840	—	—
8BB6	Marshall W. McGraw Rte. 1, Box 34 Sharpsburg (now Sarvich)	A	33°24'02" 84°37'57"	50	165	58	6	6/77	Virginia	810	—	—
8BB7	Steve Walsh Highway 54 Sharpsburg	B	33°23'00" 84°37'30"	150+	370	8	6	5/78	do.	800	—	—
8BB8	Joe Tanner Highway 54 Sharpsburg	B	33°22'59" 84°37'31"	25	85	31	6	8/75	do.	870	—	—
8BB10	R. A. Higgins Riggins Rd. (Hidley Rd.) Palmetto	F	33°29'51" 84°40'47"	50	77	38	6	11/54	do.	1,040	—	—
8BB11	R. A. Higgins Motel on Hwy. 295 Palmetto	F	33°29'38" 84°40'30"	57	340	52	6	4/57	do.	1,040	—	—
8BB12	Hank Bruns Palmetto-Fisher Rd. Palmetto	F	33°28'09" 84°39'54"	35	170	65	6	5/56	do.	980	—	—
8BB13	Cannon Gate Golf Course Palmetto	F	33°28'15" 84°39'32"	33	422	53	—	9/65	Weisner	960	—	—
8BB14	E. G. Brent, Jr. Rte. 2, Box 296 Fisher Rd. Major	F	33°27'35" 84°39'36"	25	245	49	—	1978	Askev- Morris	960	—	—

Table 9.—Record of wells in the Greater Atlanta Region--Continued

Well No.	Owner	Water-bearing unit	Latitude and longitude	Yield (gal/min)	Depth (ft)	Casing		Date drilled	Driller	Elevation (ft)	Water level below land surface	
						depth (ft)	diam. (in.)				Static head (ft)	Pumping head (ft)
Coweta County												
8BB15	Canon Gate Community Rte. 1 Sharpsburg	F	33°27'06" 84°38'52"	80	198	60	—	10/70	Weisner	930	—	—
8BB16	Staton Constr. Co. 169 N. Woods Rd. Woods Crossing Sharpsburg	A,B	33°27'02" 84°37'50"	30	285	43	—	6/78	Askew-Morris	900	—	—
8CC4	W. H. Johnson Box P Palmetto	A,F	33°30'09" 84°40'10"	150	125	33	6	8/65	Virginia	1,020	—	—
8CC5	E. K. Platt R.F.D. 2, Johnson Cir. Palmetto	A,F	33°30'12" 84°40'09"	30	226	14	6	3/73	do.	1,030	—	—
8CC9	David Miller Mobile Home Ranch I-85 at Palmetto Exit	F	33°30'20" 84°38'11"	23	406	92	6	4/71	do.	900	—	—
921	Earl E. Messer Highway 85, South Haralson	F	33°11'57" 84°34'44"	32	200	78	6	6/60	do.	770	10	80
922	R. E. McKinney Highway 85, South Haralson	F	33°12'19" 84°34'52"	36	191	106	6	2/56	do.	780	—	—
923	Charlie Miller Dun Rovin Acres Highway 85, South Haralson	F	33°12'27" 84°34'58"	30	180	85	6	8/77	do.	780	—	—
924	William J. Estes Esco Gas Co. Haralson	A	33°13'33" 84°34'13"	50	208	132	6	12/55	do.	820	—	—
925	do.	A	33°13'35" 84°34'23"	74	257	134	6	9/60	do.	820	—	—
926	J. W. Hutchinson Dreweyville Rd. Haralson	A	33°13'33" 84°34'07"	48	199	135	6	4/66	do.	820	—	—
927	Haralson School Haralson	A	33°13'38" 84°33'58"	38	203	109	—	—	—	830	20	75
929	W. J. Estes Dreweyville Rd. Haralson	A	33°13'19" 84°32'05"	47	400+	—	—	1960's	—	800	—	—
9210	H. F. Stripling (for Hubbard) Haralson	F	33°11'10" 84°16'57"	50	313	187	6	5/61	Virginia	810	—	—
9AA1	Eastside Elem. School Old Highway 85 Senoia	C	33°15'58" 84°34'48"	26	326	81	—	10/54	do.	900	20	166
9AA2	East Coweta School Peaks Crossing Sharpsburg	A	33°18'14" 84°35'56"	48	152	—	—	12/50	do.	940	—	125

Table 9.—Record of wells in the Greater Atlanta Region--Continued

Well No.	Owner	Water-bearing unit	Latitude and longitude	Yield (gal/min)	Depth (ft)	Casing		Date drilled	Driller	Elevation (ft)	Water level below land surface	
						depth (ft)	diam. (in.)				Static head (ft)	Pumping head (ft)
Coweta County												
9AA3	Paul McKnight McKnight Grain Elevs. Senoia	A	33°17'57" 84°33'49"	30	204	—	—	3/74	Virginia	840	—	—
9AA4	City of Senoia Senoia	A	33°17'49" 84°33'39"	55	500	40	—	2/46	Sou.- Stevens	840	—	—
9AA5	do.	A	33°17'30" 84°33'22"	53	459	107	—	4/47	Virginia	820	—	—
9AA6	do.	A	33°18'06" 84°32'57"	50	385	—	—	10/58	Adams- Massey	850	—	—
9AA7	do.	A	33°18'22" 84°33'14"	50	500	—	—	—	—	850	—	—

Table 9.—Record of wells in the Greater Atlanta Region--Continued

Well No.	Owner	Water-bearing unit	Latitude and longitude	Yield (gal/min)	Depth (ft)	Casing		Date drilled	Driller	Elevation (ft)	Water level below land surface	
						depth (ft)	diam. (in.)				Static head (ft)	Pumping head (ft)
Dawson County												
11KK2	Cousins Properties, Inc. Big Canoe Resort Marblehill	—	34°28'28" 84°17'39"	22	600	92	6	6/72	Virginia	1,820	158	250
11KK3	do.	—	34°28'18" 84°17'54"	103	335	52	6	7/72	do.	1,700	93	127
11KK9	do.	—	34°28'35" 84°18'39"	23	500	25	6	5/73	do.	1,870	10	315
11KK11	do.	—	34°28'11" 84°17'09"	28	500	71	6	7/73	do.	1,660	80	235
11KK12	do.	—	34°28'20" 84°17'15"	60	500	72	6	7/73	do.	1,640	60	255
11KK13	do.	—	34°28'12" 84°17'40"	40	500	38	6	7/73	do.	1,720	50	265
11KK14	do.	—	34°28'04" 84°17'07"	43	500	64	6	8/73	do.	1,650	—	150
11KK16	do.	—	34°28'22" 84°19'09"	53	500	81	6	8/73	do.	1,840	135	180
11KK24	do.	—	34°28'02" 84°15'23"	43	166	58	6	12/72	do.	1,840	31	116

F-3

FLOOD INSURANCE RATE MAP

**CITY OF
NEWNAN,
GEORGIA
COWETA COUNTY**

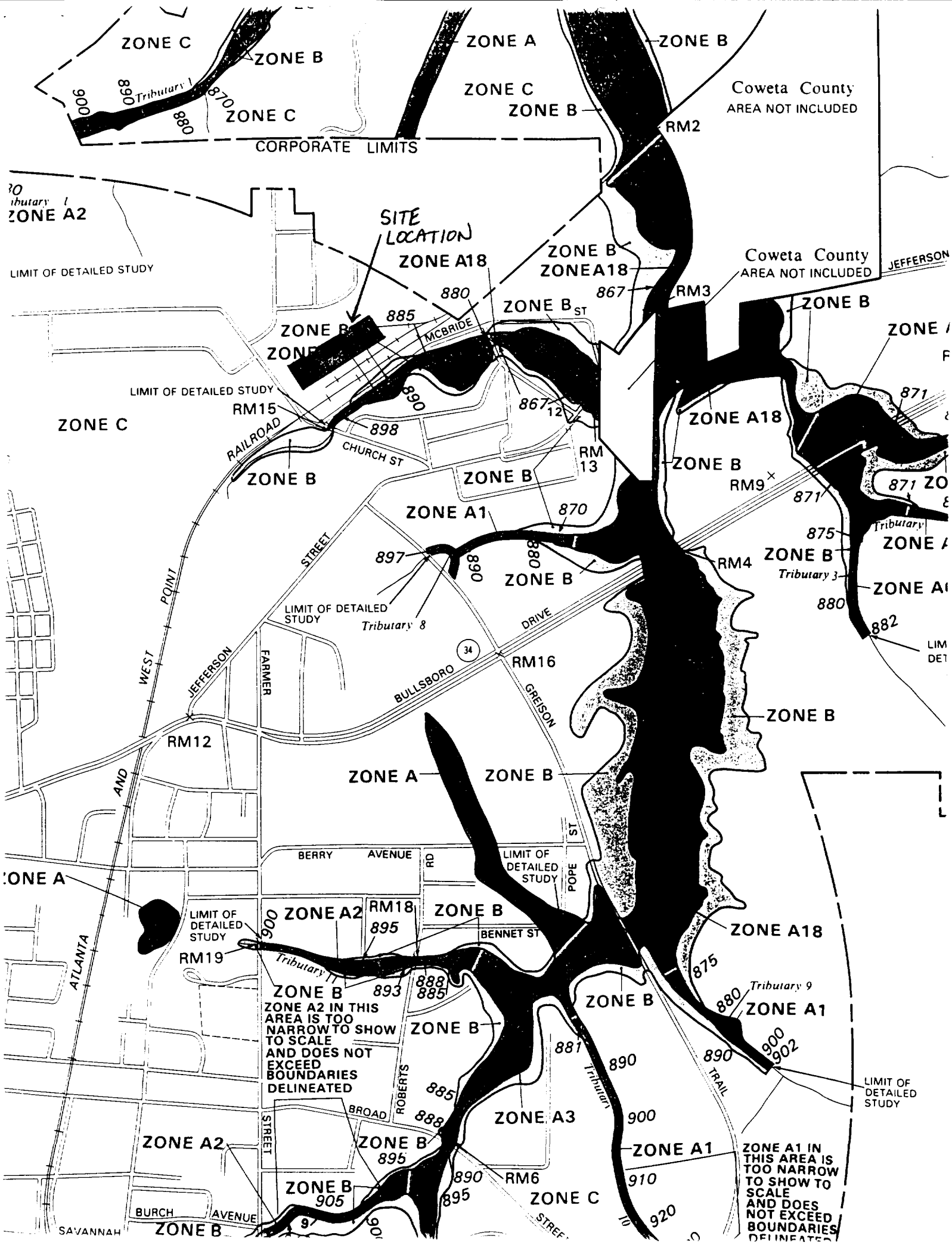
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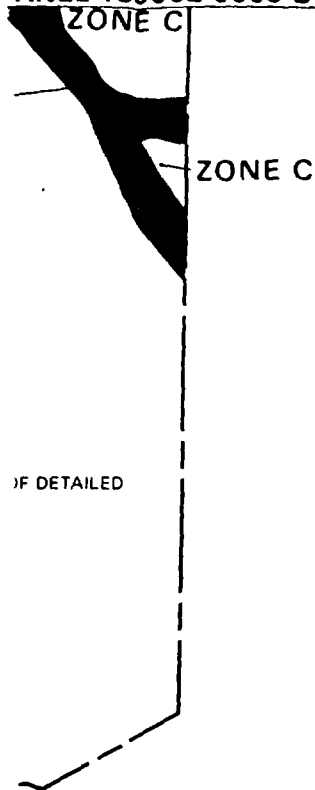
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**EFFECTIVE
NOVEMBER 15, 1978**



**U.S. DEPARTMENT OF HOUSING
AND URBAN DEVELOPMENT
FEDERAL INSURANCE ADMINISTRATION**





OF DETAILED

DETAILED STUDY

KEY TO MAP

500-Year Flood Boundary	-----
100-Year Flood Boundary	-----
Zone Designations* With Date of Identification e.g., 12/2/74	
100-Year Flood Boundary	-----
500-Year Flood Boundary	-----
Base Flood Elevation Line With Elevation In Feet**	~~~~~ 513 ~~~~~
Base Flood Elevation in Feet Where Uniform Within Zone**	(EL 987)
Elevation Reference Mark	RM7x
River Mile	•M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Index To Map Panels.

INITIAL IDENTIFICATION
MAY 31, 1974



Water Resources Data Georgia Water Year 1991

by W.R. Stokes III, R.D. McFarlane, and G.R. Buell



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT GA-91-1
Prepared in cooperation with the State of Georgia
and with other agencies

APALACHICOLA RIVER BASIN

02338000 CHATTAHOOCHEE RIVER NEAR WHITESBURG, GA.

LOCATION.—Lat 33°28'37", long 84°54'04", Carroll-Coweta County line, Hydrologic Unit 03130002, at downstream end of right bank pier of bridge on State Highway 16, 0.5 mi upstream from Central of Georgia Railroad bridge, 1.2 mi southeast of Whitesburg, 1.5 mi downstream from Cedar Creek, 2.0 mi downstream from Snake Creek, and at mile 259.8.

DRAINAGE AREA.—2,430 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1938 to June 1954, January 1965 to current year.

GAGE.—Water-stage recorder. Datum of gage is 682.06 ft above National Geodetic Vertical Datum of 1929. Prior to May 1, 1949, nonrecording gage at site 1.0 mi upstream at datum 2.00 ft higher. May 1, 1949 to June 30, 1954, nonrecording gage at present site at datum 2.00 ft higher.

REMARKS.—No estimated daily discharges. Records good. Flow regulated by Lake Sidney Lanier since January 1956. (See "Lakes and Reservoirs in Apalachicola River Basin," station 02334400.) Diversions and return flows above station regulated by Gwinnett, DeKalb, and Cobb Counties, and by the City of Atlanta. Considerable diurnal fluctuation caused by Morgan Falls hydroelectric plant.

AVERAGE DISCHARGE.—41 years (water years 1939-53, 1966-91), 3,965 ft³/s, 22.16 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 59,000 ft³/s, Jan. 10, 1946, gage height, 25.1 ft, site and datum then in use, from graph based on gage readings, from rating extended above 30,000 ft³/s on basis of velocity-area and channel-capacity studies; minimum daily discharge, 468 ft³/s, Oct. 26, 1941.

EXTREMES FOR CURRENT YEAR.—Maximum discharge, 20,300 ft³/s, Mar. 30, gage height, 15.29 ft; minimum daily discharge, 1,390 ft³/s, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1390	2080	2370	2900	5580	3190	4390	6200	4130	2490	4940	6750
2	2620	2990	1740	2590	3950	10300	3670	5890	3650	2730	4330	7530
3	3940	2930	1790	2500	2790	8500	3440	5290	2460	2860	3970	7750
4	3580	1740	6240	2480	2390	6560	3120	5300	2980	2900	2770	4760
5	4000	1450	3450	2440	2490	4970	3000	10500	3400	5890	1970	5140
6	3740	2330	2950	1920	2750	4190	3130	17200	3300	4600	2330	5410
7	2520	3030	2430	1830	2660	3720	2780	14100	3140	2880	3850	5690
8	1580	3060	2300	2760	2600	3520	2850	12400	3040	2410	3680	5100
9	2730	3740	1800	3330	2540	3270	3580	10400	2290	3450	3210	2670
10	3940	6110	1580	3570	2120	2590	5530	10300	1920	3770	5000	2770
11	6420	3440	1730	6080	1890	2290	4310	12000	2580	4910	3240	3460
12	8130	1970	2810	7040	2290	2240	3610	11800	3510	3920	4680	3770
13	5690	2980	4050	3820	2420	3230	3720	8030	3600	3470	4080	4040
14	2880	3880	4390	2570	3060	4340	3510	7500	4250	2950	5370	4030
15	1710	3840	4530	2660	3010	3140	2720	7330	6320	2240	7020	2810
16	2870	3330	2830	3110	2570	2580	2940	7210	4140	3140	4470	1970
17	3820	2300	1550	2900	3020	2310	2930	7460	2410	5130	3850	4040
18	4970	1990	2010	2620	2330	2480	2700	8320	3540	12500	2660	5380
19	5510	1490	3370	2720	2680	2370	4990	9330	5290	10100	2740	5760
20	3900	1880	3030	3430	6520	2280	5020	9080	5750	7910	3160	7250
21	2600	2190	4740	2470	9460	2230	3470	6910	8010	4560	3650	5820
22	1730	2250	2650	2430	6640	2220	2570	6050	7570	2660	3450	3280
23	8830	2160	2120	2550	9340	2240	2780	5440	5080	3430	3430	1740
24	5900	2080	3520	2750	5330	2220	2890	5230	2670	4390	3470	3900
25	3680	1770	3860	3830	3820	2040	2650	4990	4640	6300	2670	8570
26	2820	1420	3160	3150	3630	1990	2610	3590	8460	5410	2370	7810
27	2450	1850	2860	2410	3490	2360	3060	2690	9030	5530	3110	7270
28	1910	2220	2700	2150	3160	3010	6000	7060	4450	4330	5160	6660
29	1600	2960	2490	2190	—	10000	4620	5750	4800	3970	6340	3750
30	2030	2550	2070	4700	—	17700	6760	4710	3150	4620	8420	1870
31	2230	—	2480	11200	—	7760	—	4460	—	5160	8390	—
TOTAL	111720	78010	89600	103100	104530	131840	109350	242520	129560	140610	127780	146750
MEAN	3604	2600	2890	3326	3733	4253	3645	7823	4319	4536	4122	4892
MAX	8830	6110	6240	11200	9460	17700	6760	17200	9030	12500	8420	8570
MIN	1390	1420	1550	1830	1890	1990	2570	2690	1920	2240	1970	1740
CAL YR 1990	TOTAL 1986320		MEAN 5442		MAX 47600		MIN 1390		MEAN† 4941		CFSM† 2.03	
WTR YR 1991	TOTAL 1515370		MEAN 4152		MAX 17700		MIN 1390		MEAN† 4430		CFSM† 1.82	
											IN† 27.61	
											IN† 24.76	

†ADJUSTED FOR CHANGE IN CONTENTS IN LAKE SIDNEY LANIER.

APALACHICOLA RIVER BASIN

02338000 CHATTAHOOCHEE RIVER NEAR WHITESBURG, GA.—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—February 1968 to May 1972, July 1975 to current year.

PERIOD OF DAILY RECORD.—

WATER TEMPERATURES: August 1975 to September 1976, November 1978 to September 1984.

REMARKS.—Laboratory analyses with the analyzing agency code 80113 are provided by the U.S. Geological Survey. Laboratory analyses with the analyzing agency code 81314 are provided by the Laboratory Services Section, Environmental Protection Division, Georgia Department of Natural Resources. Field determinations of Discharge, Specific Conductance, pH, Water Temperature, Air Temperature, and Dissolved Oxygen are by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.—

WATER TEMPERATURES: Maximum, 31.5°C June 24, 1981; minimum, 1.5°C Jan. 13, 1982.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT 02...	0750	81341	1630	120	115	7.2	7.1	21.0	15.0	6.6	76
NOV 07...	1050	81341	3460	102	98	7.0	7.0	15.0	20.5	7.8	79
DEC 04...	0745	81341	7810	95	94	6.7	6.7	14.0	3.0	7.8	77
JAN 08...	0830	81341	2350	115	108	6.1	7.0	13.0	8.0	8.6	83
FEB 05...	0745	81341	2300	110	102	7.0	6.8	11.0	9.0	10.0	92
MAR 05...	0745	81341	4990	65	69	7.0	6.6	10.5	2.0	8.9	82
APR 02...	0645	81341	3400	80	76	7.0	6.9	14.0	4.5	8.2	81
MAY 07...	0630	81341	13900	58	55	6.7	6.6	19.0	10.0	7.0	77
JUN 04...	0530	81341	2370	107	103	7.1	7.0	25.0	22.5	6.0	75
JUL 09...	0615	81341	2910	108	101	7.1	6.9	25.0	22.5	6.4	79
AUG 06...	0600	81341	1920	112	104	7.2	6.9	26.0	22.5	6.1	77
SEP 03...	0600	81341	10400	53	49	6.9	6.5	20.5	17.0	6.6	75

APALACHICOLA RIVER BASIN

02338000 CHATTAHOOCHEE RIVER NEAR WHITESBURG, GA.—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	TUR- BID- ITY (NTU)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, FECAL, EC BROTH (MPN)	ALKA- LINITY WAT WH TOT FET LAB MG/L AS CACO3	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 02...	81341	9.0	0.3	3300	21	13	1.83	0.090	0.300	2.8
NOV 07...	81341	24	2.5	7000	22	38	1.24	0.150	0.250	3.6
DEC 04...	81341	150	3.0	17000	19	257	1.17	0.200	0.390	13
JAN 08...	81341	15	2.0	790	20	19	1.34	0.150	0.250	3.7
FEB 05...	81341	19	1.3	230	19	50	1.29	0.160	0.170	7.4
MAR 05...	81341	56	1.3	1000	17	39	0.730	0.080	0.140	6.3
APR 02...	81341	44	1.3	1300	16	42	0.900	0.060	0.160	4.3
MAY 07...	81341	150	4.0	12450	13	156	0.440	0.110	0.300	10
JUN 04...	81341	22	1.3	330	21	38	1.51	0.110	0.200	25
JUL 09...	81341	20	0.7	330	21	35	1.69	0.030	0.220	4.1
AUG 06...	81341	11	0.4	700	22	14	1.76	0.060	0.300	3.1
SEP 03...	81341	260	2.0	13000	11	359	0.740	0.050	0.210	5.1

DATE	TIME	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 10...	1243	80113	3670	21.0	32	317
10...	1248	80113	3670	21.0	34	337
JAN 07...	1344	80113	180	--	7	3.4
07...	1349	80113	180	--	8	3.9
30...	1540	80113	3880	--	101	1060
30...	1545	80113	3880	--	113	1180
31...	1318	80113	11300	--	405	12400
FEB 11...	1445	80113	1950	12.0	8	42
11...	1450	80113	1950	12.0	8	42
25...	1245	80113	2050	14.0	39	216
25...	1250	80113	2050	14.0	40	221
JUN 10...	1414	80113	1990	24.0	34	183
10...	1419	80113	1990	24.0	30	161
JUL 29...	1344	80113	3820	--	45	464
29...	1349	80113	3820	--	44	454
SEP 09...	1500	80113	2440	21.5	33	217
09...	1505	80113	2440	21.5	38	250

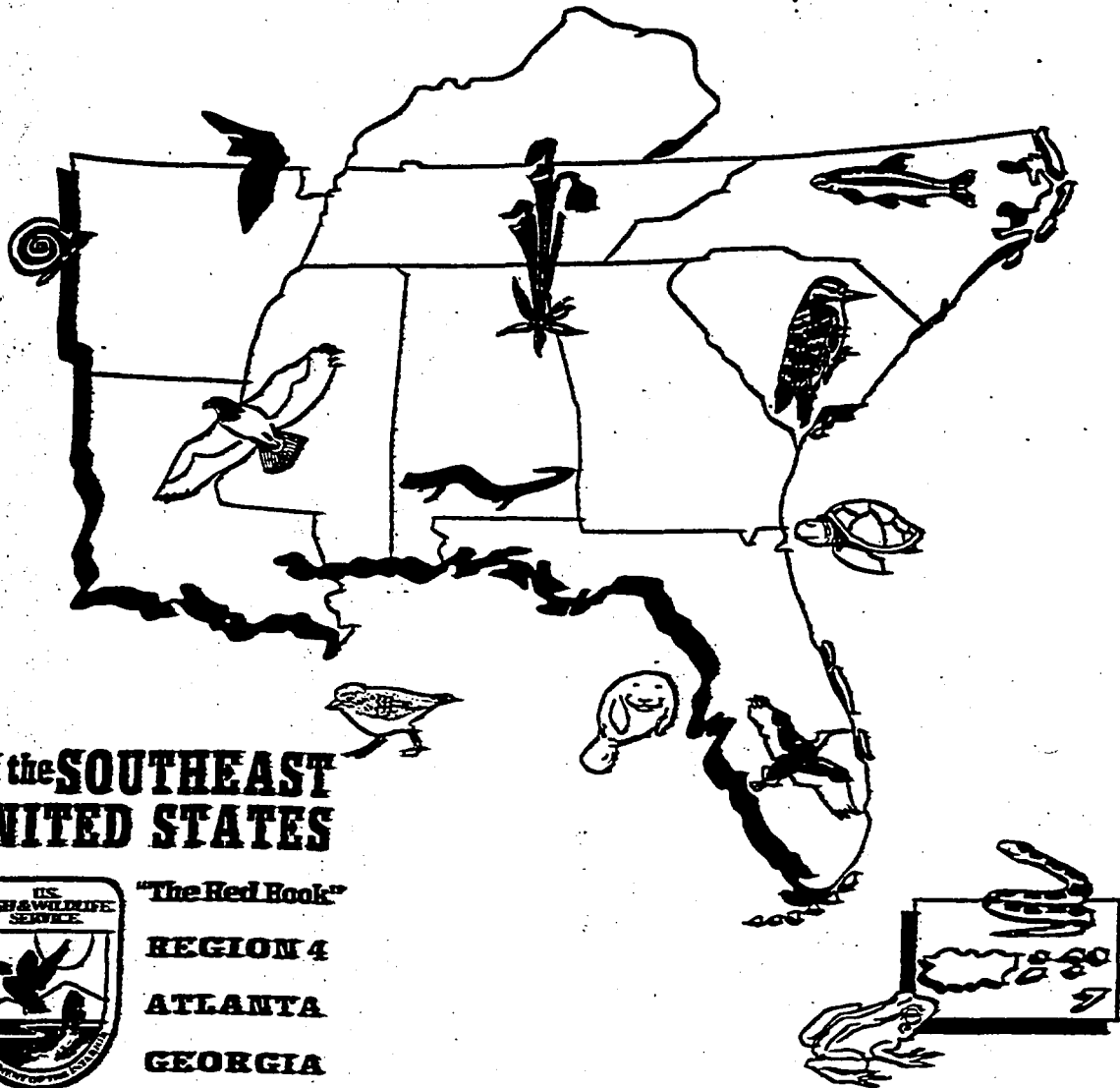
APALACHICOLA RIVER BASIN

02338000 CHATTAHOOCHEE RIVER NEAR WHITESBURG, GA.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM							
JAN 31...	1313	80113	11300	71							
DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
JAN 31...	1152	12000	<1	<1	4	28	58	85	94	99	100
31...	1153	12000	<1	1	6	28	42	61	83	92	100
31...	1154	12000	<1	<1	<1	40	40	60	60	100	100
31...	1156	12000	<1	<1	2	18	78	98	100	100	100

ENDANGERED & THREATENED SPECIES



of the **SOUTHEAST**
UNITED STATES



"The Red Book"
REGION 4
ATLANTA
GEORGIA

9200991

**ENDANGERED AND THREATENED SPECIES
OF THE
SOUTHEASTERN UNITED STATES
(THE RED BOOK)**

Introduction Section, Volume 1

Prepared by:

**U.S. Fish and Wildlife Service
Southeast Region
Atlanta, Georgia**

January 1992

**Availability Unlimited
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Pittsburgh, PA 15250-7954**

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3/17/93

Federally Listed Species by State

GEORGIA

(E=Endangered; T=Threatened; CH=Critical Habitat determined)

Mammals

General Distribution

Bat, gray (<u>Myotis grisescens</u>) - E	Northwest, West
Bat, Indiana (<u>Myotis sodalis</u>) - E	Extreme Northwest
Manatee, West Indian (<u>Trichechus manatus</u>) - E	Coastal waters
Panther, Florida (<u>Felis concolor coryi</u>) - E	Entire State
Whale, finback (<u>Balaenoptera physalus</u>) - E	Coastal waters
Whale, humpback (<u>Megaptera novaeangliae</u>) - E	Coastal waters
Whale, right (<u>Eubalaena glacialis</u>) - E	Coastal waters
Whale, sei (<u>Balaenoptera borealis</u>) - E	Coastal waters
Whale, sperm (<u>Physeter catodon</u>) - E	Coastal waters

Birds

Eagle, bald (<u>Haliaeetus leucocephalus</u>) - E	Entire State
Falcon, American peregrine (<u>Falco peregrinus anatum</u>) - E	North
Falcon, Arctic peregrine (<u>Falco peregrinus tundrius</u>) - T	Coast, Northwest
Plover, piping (<u>Charadrius melodus</u>) - T	Coast
Stork, wood (<u>Mycteria americana</u>) - E	Southeastern swamps
Warbler, Bachman's (<u>Vermivora bachmanii</u>) - E	Entire State
Warbler, Kirtland's (<u>Dendroica kirtlandii</u>) - E	Coast
Woodpecker, ivory-billed (<u>Campephilus principalis</u>) - E	South, Southwest
Woodpecker, red-cockaded (<u>Picoides [=Dendrocopos] borealis</u>) - E	Entire State

Reptiles

Alligator, American (<u>Alligator mississippiensis</u>) - T(S/A)*	Coastal plain
Snake, eastern indigo (<u>Drymarchon corais couperi</u>) - T	Southeast

*Alligators are biologically neither endangered nor threatened. For law enforcement purposes they are classified as "Threatened due to Similarity of Appearance." Alligator hunting is regulated in accordance with State law.

GEORGIA (Cont'd)

State Lists 3/17/93

General Distribution

Turtle, Kemp's (Atlantic) ridley
(Lepidochelys kempii) - E

Coastal waters

Turtle, green
(Chelonia mydas) - T

Coastal waters

Turtle, hawksbill
(Eretmochelys imbricata) - E

Coastal waters

Turtle, leatherback
(Dermochelys coriacea) - E

Coastal waters

Turtle, loggerhead (Caretta caretta) - T

Coastal waters

Fishes

Darter, amber (Percina antesella) - E,CH

Conasauga R.,
Murray County
Upper Coosa River System

Darter, goldline (Percina aurolineata) - T

Darter, snail (Percina tanasi) - T

S. Chickamauga Cr.,
Catoosa County

Logperch, Conasauga (Percina jenkinsi) - E,CH

Conasauga R.,
Murray County

Shiner, blue (Cyprinella caerulea) - T

Conasauga and Coosawattee
Rivers, Holly, Rock, Perry,
and Turniptown Creeks

Sturgeon, shortnose
(Acipenser brevirostrum) - E

Coastal rivers

Mollusks

Acornshell, southern (Epioblasma
othcaloogensis) - E

Coosa River drainage

Clubshell, southern (Pleurobema decisum) - E

Coosa River and tributaries

Combshell, upland (Epioblasma metastriata) - E

Conasauga River

Kidneyshell, triangular (Ptychobranhus
greeni) - E

Coosa drainage of the
Conasauga River

Moccasinshell, Alabama (Medionidus
acutissimus) - T

Conasauga River

Moccasinshell, Coosa (Medionidus
parvulus) - E

Chatooga River;
Conasauga River

Pocketbook, fine-lined (Lampilis altilis) - T

Conasauga River

Pigtoe, southern (Pleurobema georgianum) - E

Upper Conasauga River

GEORGIA (Cont'd)

General Distribution

Plants

<u>Amphianthus pusillus</u> (little amphianthus) - T	Piedmont Region (17 Counties)
<u>Baptisia arachnifera</u> (hairy rattleweed) - E	Wayne, Brantley Counties
<u>Echinacea laevigata</u> (smooth coneflower) - E	Stephens County
<u>Helonias bullata</u> (Swamp pink) - T	Union County
<u>Isoetes melanospora</u> (black-spored quillwort) - E	Dekalb, Rockdale, Gwinnett Counties
<u>Isoetes tegetiformans</u> (mat-forming quillwort) - E	Columbia, Hancock, Greene, Putnam Counties
<u>Isotria medeoloides</u> (small whorled pogonia) - E	Rabun County
<u>Lindera melissifolia</u> (pondberry) - E	Wheeler County
<u>Marshallia mohrii</u> (Mohr's Barbara's-buttons) - T	Floyd County
<u>Oxypolis Canbyi</u> (Canby's dropwort) - E	Burke, Lee, Sumter Counties
<u>Ptilimnium nodosum</u> (harperella) - E	Greene County
<u>Rhus michauxii</u> (Michaux's sumac) - E	Elbert, Columbia, Gwinnett, Muscogee, Newton, Rabun, Counties
<u>Sagittaria secundifolia</u> (Kral's water- plantain) - T	Chattooga County
<u>Silena polypetala</u> (fringed campion) - E	Bibb, Crawford, Taylor, Talbot Counties
<u>Sarracenia oreophila</u> (green pitcher plant) - E	Towns County
<u>Scutellaria montana</u> (large-flowered skullcap) - E	Floyd, Gordon, Walker Counties
<u>Schwalbea americana</u> (American chaffseed) - E	Baker, Dougherty Counties
<u>Spiraea virginiana</u> (Virginia spiraea) - T	Walker, Dade Counties
<u>Torreya taxifolia</u> (Florida torreya) - E	Decatur County
<u>Trillium persistens</u> (persistent trillium) - E	Tallulah-Tugaloo River system, Rabun and Habersham Counties
<u>Trillium reliquum</u> (relict trillium) - E	Clay, Columbia, Early, Talbot, Lee Counties
<u>Xyris Tennesseeensis</u> (Tennessee yellow-eyed grass) - E	Bartow County

i

NEWNAN-JAMES RIVER

LATITUDE 33:23:30 LONGITUDE 84:47:30 1983 POPULATION

	0 - 1/4	1/4 - 1/2	1/2 - 1	1 - 2	2 - 3	3 - 4	SECTOR TOTALS
KM	0.00-.400	.400-.810	.810-1.60	1.60-3.20	3.20-4.80	4.80-6.40	
S 1	0	0	0	1508	0	0	1508
S 2	0	0	0	0	0	0	0
S 3	0	0	0	0	0	1677	1677
S 4	0	0	0	0	1292	0	1292
S 5	0	0	1058	2465	0	1292	4815
S 6	0	647	0	1826	3774	0	6247
S 7	0	0	1191	0	0	0	1191
S 8	0	0	0	0	0	3507	3507
RING TOTALS	0	647	2249	5799	5066	6476	20237

press RETURN to continue

MENU: Geodata Handling Data List procedures

~~Enter any command or option in parentheses~~

(ENTER ANY COMMAND)

or a command: HELP, HELP option, BACK, CLEAR, EXIT, TUTOR

GEMS> exit

Type YES to confirm the EXIT command; type NO to restart GEMS

GEMS> yes

\$ logout

HTW logged out at 13-APR-1995 14:31:30.85

Itemized resource charges, for this session, follow:

NODE: VAXTM1

ACCT: 9040

PROJ: GEMS0001

USER: HTW

UIC: [000710,000012]

BAUD:

START TIME: 13-APR-1995 14:30:40.87

FINISH TIME: 13-APR-1995 14:31:30.85

BILLING PERIOD: 950401

WEEKDAY: THURSDAY

TERMINAL PORT: VTA1839

DESCRIPTION OF CHARGE	QUANTITY	EXPENDITURE
ALL CHARGE LEVELS		
300 baud (Seconds)	50	0.0000
CPU TIME (Seconds)	3	0.4983
TOTAL FOR THIS SESSION		\$ 0.4983

** Note: This total reflects the charges for this process only, subprocesses created during this session are accounted for separately

CLR PAD

NO CARRIER



BLACK & VEATCH Waste Science, Inc.

400 Northridge Road, Suite 350, Atlanta, Georgia 30350, (404) 594-2500, Fax: (404) 587-2930

US EPA -- Region IV
Site Inspection Prioritization
Work Assignment No. 12

BVWS Project 52012.583
August 7, 1995

Mr. Doug Mundrick
Chief, South Superfund Remedial Branch
U.S. Environmental Protection Agency
345 Courtland Street, NE
Atlanta, Georgia 30365

[Handwritten signature]
WFOBP
9/10/95

Subject: Draft Site Inspection Prioritization
James River Norwalk Site
Coweta County, ~~FL~~ GA
EPA ID No. ~~FLD003913159~~

Dear Mr. Mundrick:

Enclosed please find one copy of the Draft Site Inspection
Prioritization for James River Norwalk Site in Coweta County, Florida. If
you have any questions, please contact me at 404/643-2320.

GEORGIA

Very truly yours,

BLACK & VEATCH Waste Science, Inc.

[Handwritten signature: Felicia Williams-Moon for]
Victor Blix
Project Manager

fw
Enclosures

cc: Doug Thompson, EPA PO, w/o enclosures
Deborah Davidson, EPA CO, w/o enclosures
Earl Bozeman, EPA WAM, w/o enclosures



BLACK & VEATCH Waste Science, Inc.

1201 Pacific Avenue, Suite 1100, Tacoma, Washington 98402-4301, (206) 383-1436, Fax: (206) 383-8930

U.S. Environmental Protection Agency
James River Norwalk Site
Work Assignment 12

BVWS Project 52012.583
July 14, 1995

Mr. Narindar Kumar, Chief
Site Assessment Section
U.S. Environmental Protection Agency
345 Courtland Street, NE
Atlanta, Georgia 30365

Subject: Site Inspection Prioritization
James River Norwalk Site
Coweta County, ~~Florida~~ Georgia
EPA ID GAD003913159

Dear Mr. Kumar:

BLACK & VEATCH Waste Science, Inc. has been tasked by the U.S. Environmental Protection Agency (EPA) to conduct a Site Inspection Prioritization for the James River Norwalk Site (the site) in Newnan, Coweta County, Georgia. In accordance with the scope of work, a preliminary Hazard Ranking System (HRS) score was prepared to determine the need for future activities at the site.

The active facility is located within the city limits of Newnan, Georgia, in central Coweta County (Ref. 1). James River Corporation (formerly known as American Can Company) maintained an off-set platemaking plant which disposed of waste in an onsite drainfield from March 1975 until June 1980 (Refs. 2, p. 1; 3, p. 1; 4, p. 1). The drainfield consisted of five 100-foot long, 4-inch diameter PVC laterals fed from a common distribution box. The drainfield measured 52 feet across the laterals, covering approximately 5,200 square feet (Ref. 2, p. 1). According to design drawings, the drainfield was covered with 18 inches of backfill material (Ref. 3, p. 4). The drainfield was designed to receive a maximum flow of 5,000 gallons per day (gpd). The actual maximum flow was only 1,500 gpd; of which, approximately 15 gpd was reported to be waste material. The total amount of waste material

disposed of in the drainfield is estimated to be 21,600 gallons (Refs. 2, p. 1; 3, p. 1). The waste material was reported to contain cyanide, arsenic, mercury, chromium, copper, lead, and phenols (Ref. 2, p. 1).

The Waste Management Division of EPA requested a Site Screening Investigation (SSI) be conducted for the site (Ref. 2, p. 1). It was scheduled for the week of February 18, 1985. The objectives of the investigation were to: 1) determine if the soil in the drainfield was contaminated; 2) locate and sample any leachate streams from the site; and 3) gather background information (Ref. 2, p.2). However, neither sampling results nor a SSI report were included in the available file material.

Residents within a 4-mile radius of the site rely on surface water for potable water, which is supplied by the Newnan Water Utility and the Coweta County Water and Sewer Department (Refs. 5; 6). The City of Newnan operates two surface water intakes at Line Creek and White Oak Creek which are not located along the 15-mile surface water migration pathway (Refs. 1; 5). Water is pumped from the intake locations and then blended and filtered at the Newnan Waterworks plant (Ref. 7). Water is distributed throughout the county via an extensive system of water lines (Ref. 8). Coweta County owns an inactive intake station on Wahoo Creek, approximately 6 miles downstream from the site (Ref. 7).

An estimated 25 percent of the population outside the Newnan water service area use groundwater as a source of potable water (Refs. 9; 10). The aquifer of concern in the area is the unconfined residual soil/crystalline rock aquifer system (Ref. 11, pp. 5, 12, 13). Groundwater is contained within the pore spaces of the surficial deposits and joints and fractures in the bedrock. The depth to groundwater is dependent on precipitation and topography (Ref. 11, p. 12). There are no wellhead protection areas within 4 miles of the site (Ref. 12). The estimated population within a 4-mile radius of the site using groundwater from the soil/crystalline aquifer is radially distributed as follows: 0 - 0.25 mile, 0 persons; 0.25 - 0.50 mile, 0 persons; 0.50 - 1 mile, 9 persons; 1 - 2 miles, 181 persons; 2 - 3 miles, 546 persons; 3 - 4 miles, 607 persons (Refs. 1; 9; 10). The nearest well is approximately 1 mile north of the site (Ref. 13, pp. 98 - 105).

The drainfield is located on the knoll of a hill approximately 200 feet north of an unnamed tributary of Wahoo Creek (Ref. 2, p. 1). Local topography slopes steeply from the top of the knoll southeast towards Wahoo Creek (Refs. 1; 2, p. 1). The site is determined to be outside the 500-year designated floodplain (Ref. 14). Flow from the unnamed tributary of Wahoo Creek continues approximately 100 feet before entering into an unnamed pond. After draining the unnamed pond, the unnamed tributary flows approximately 1 mile north before entering Wahoo Creek. Wahoo Creek flows west for approximately 12 miles before reaching the Chattahoochee River (Ref. 1). Based on topographic maps, the flow in Wahoo Creek and unnamed tributaries is less than 10 cubic feet per second (cfs) (Ref. 1). The Chattahoochee River flows south-southwest at an average flow rate of 3,965 cfs (Ref. 15). The 15-mile target distance limit ends in the Chattahoochee River (Ref. 1). There are no surface water intakes along the 15-mile surface water migration pathway (Ref. 12).

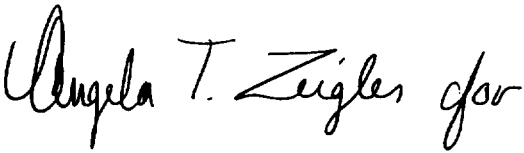
No wetlands have been identified along the 15-mile surface water pathway (Ref. 1). The Chattahoochee River is classified as a fishery, and Wahoo Creek has the potential to support recreational fishing. The ranges of several federally endangered or threatened species may include the area within 4 miles of the site; however, exact species locations were not identified (Ref. 16). The Florida panther (*Felis concolor coryi*), Bachman's warbler (*Vermivora Bachmanii*), and red-cocked woodpecker (*Picoides brealis*) are federally designated endangered species with ranges occurring in the entire state (Ref. 16). The gray bat (*Myotis grisescens*), a federally designated endangered species, may also exist in west Georgia (Ref. 16, p. 1).

The facility is currently active; however, the number of workers at the facility is unknown (Ref. 4, p. 1). Approximately 20,534 people live within 4 miles of the site. The estimated population within 4 miles of the site is radially distributed as follows: 0 - 0.25 mile, 297 persons; 0.25 - 0.50 mile, 647 persons; 0.50 - 1 mile, 2,249 persons; 1 - 2 miles, 5,799 persons; 2 - 3 miles, 5,066 persons, 3 - 4 miles, 6,476 persons (Refs. 1; 9; 17). The nearest residences are located approximately 200 feet northwest of the site (Ref. 4, p. 1).

Because of the limited file information, it is recommended that further source characterization be conducted for this site to determine if contamination exists. Attached are all the references used during this evaluation. If you have any questions or comments, please contact me at (206) 383-1436 or Victor Blix at (404) 643-2320.

Sincerely,

BLACK & VEATCH Waste Science, Inc.

A handwritten signature in black ink that reads "Angela T. Zeigler for". The signature is written in a cursive, flowing style.

Robert D. Brockhaus, P.E.

Site Manager

rdb

Enclosure

REFERENCES

1. U.S. Geological Survey, 7.5-minute series Topographic Quadrangle Maps of Georgia: Newnan South, GA, 1965 (Photorevised 1973); Newnan North, GA, 1965 (Photorevised 1982); Madras, GA, 1965 (Photorevised 1983); Sharpsburg, GA, 1965 (Photorevised 1982); Whitesburg, GA, 1965 (Photorevised 1982), scale 1:24,000.
2. Study Plan, American Can Company, Newnan, Coweta County Georgia, ESD No. 85-121, Acct. No. 5TFA04DCZZ, February 1985.
3. Therese Sathue, James River Corporation, letter with attachments to John D. Taylor, Jr., Program Manager, Industrial and Hazardous Waste Program, Department of Natural Protection, Environmental Protection Agency, January 7, 1983. Subject: James River Corporation, CERCLA 103(c) Notification.
4. Kem Reliford, Civil Engineer, BLACK & VEATCH Waste Science, Inc., Field Inspection Report with map, March 11, 1995.
5. Larry Hand, Newnan Water Utility, telephone conversation with Robert Brockhaus, Project Engineer, BLACK & VEATCH Waste Science, Inc., April 5, 1995. Subject: Newnan Water Supply #1.
6. Edward Whitlock, Coweta County Water and Sewer Department, memorandum to Robert Brockhaus, BLACK & VEATCH Waste Science, Inc., April 18, 1995. Subject: Coweta County water supply.
7. Larry Hand, Newnan Water Utility, telephone conversation with Robert Brockhaus, Project Engineer, BLACK & VEATCH Waste Science, Inc., May 1, 1995. Subject: Newnan Water Supply #2.
8. Comprehensive Distribution Water Main Map With 5-Mile Radius Circle, Coweta County Water and Sewer Department, April 18, 1995, modification from a General Highway Map, Coweta County, Georgia, Scale 1inch:1 mile, 1989.
9. U.S. Department of Commerce, Economics and Statistics Administration, Bureau of the Census, 1990 Census of Population Housing. Summary Population and Housing Characteristics, Georgia, 1990CPH-1-12, August 1991, excerpt, 2 pages.
10. Edward Whitlock, Coweta County Water and Sewer Department, telephone conversation with Robert Brockhaus, Project Engineer, BLACK & VEATCH Waste Science, Inc., May 1, 1995. Subject: Coweta County Water Supply.
11. C.N. Joiner, et. al., U.S. Geological Survey, Ground-Water Data for Georgia, 1987, Open-File Report 88-323, 1988.

12. Larry Hand, Newnan Water Utility, telephone conversation with Robert Brockhaus, Project Engineer, BLACK & VEATCH Waste Science, Inc., May 16, 1995. Subject: Newnan Water Supply #3.
13. C.W. Cressler, et. al., Georgia Department of Natural Resources, Georgia Environmental Protection Division, Georgia Geological Survey, and U.S. Geological Survey, Ground Water in the Greater Atlanta Region, Georgia, Information Circular 63, 1983.
14. Federal Emergency Management Agency, Flood Insurance Rate Map, Community-Panel Number 130062 0005B, City of Newnan, Georgia, November 15, 1978.
15. W.R. Stokes III, et. al., U.S. Geological Survey, Water Resources Data - Georgia, Water Year 1991, Water Data Report GA-91-1, excerpt, 4 pages.
16. U.S. Fish and Wildlife Service, Endangered and Threatened Species of the Southeastern United States (The Red Book), Southeast Region, Atlanta, Georgia, January 1992, revised, March 17, 1993.
17. U.S. EPA, Graphical Exposure Modeling System (GEMS) Database, compiled from U.S. Bureau of the Census data (1983).

CONFIDENTIAL
Hazard Ranking System Preliminary Score
for
James River Norwalk Site
Newnan, Coweta County, Georgia
EPA ID GAD003913159

The preliminary HRS score for the James River Norwalk Site was calculated using the Site Investigation Worksheets. Pathways evaluated include groundwater migration, surface water migration, soil exposure, and air migration. The score reflects a maximum Hazardous Waste Quantity value of 10 for all pathways, based on the estimated area of contaminated soil at the onsite drainfield. Although sample collection during a Site Screening Investigation was planned, no sample results were included in the project file. According to the EPA Study Plan for the site, the waste is reported to have contained cyanide, arsenic, mercury, chromium, copper, lead, and phenols. Analyses of the waste generated from the facility's plate making operation indicated the presence of the constituents.

The groundwater migration pathway was scored based on an evaluation of potential release of metals to the unconfined soil/crystalline rock aquifer system. Non-karst target and mobility values were used in evaluating the aquifer. Residents within a 4-mile radius mainly rely on surface water for potable water. An estimated 25 percent of the population outside the Newnan water service area use the residual soil/crystalline rock aquifer as a source of water. It is estimated that approximately 1,343 persons obtain potable water from wells within 4 miles of the site. The resulting groundwater water migration pathway score is minimal due to lack of an observed release and that most potable water is obtained from surface water.

The surface water migration pathway score was based upon an evaluation of the potential to release metals to unnamed tributaries of Wahoo Creek, Wahoo Creek, and the Chattahoochee River. The flow rates of the unnamed tributaries of Wahoo Creek and Wahoo Creek were both estimated between 0 - 10 cubic feet per second (cfs). The flow rate of the Chattahoochee River is estimated to be 3,965 cfs. The ranges of several endangered or threatened species may include the water bodies along the surface water migration pathway; however, exact locations have not been identified. The surface water intakes used to obtain potable water for the area are not along the 15-mile surface water migration pathway. The resulting surface water migration pathway score is minimal due to lack of an observed release.

The soil exposure pathway was based on assumed surficial contamination. No surficial soil analyses were included in the available file material. Currently, the facility is active. The number of workers at the facility was not documented; therefore, it was assumed that up to 100 persons may be employed at the facility. The drainfield was covered with 18 inches of backfill material and is currently overgrown with vegetation. The soil exposure pathway score is minimal due to lack of an onsite residential population.

The air migration pathway score was based upon a potential to release and a target value derived from potential human and sensitive environment populations. Approximately 20,534 persons reside within 4 miles of the site. Population distribution was estimated using a combination GEMS information and house count from topographic maps. Approximately 113 acres of wetlands are located within 4 miles of the site. The air migration pathway is minimal due to the lack of an observed release.

No environmental samples have been collected at the site or were available in the project file. Further source characterization is recommended for this site.

HRS SCORING SUMMARY

S_{gw}	=	1.47
S_{sw}	=	9.39
S_{so}	=	0.60
S_{air}	=	2.06

OVERALL SCORE = 4.87

HRS Scoresheets

Site Name: James River Norwalk Site
 Location: Coweta County, Georgia

GROUNDWATER MIGRATION PATHWAY SCORESHEET

<u>Likelihood of Release to an Aquifer</u>	<u>Maximum Value</u>	<u>Assigned Value soil/crystalline</u>
1. Observed Release	550	0
2. Potential to Release		
2a. Containment	10	10
2b. Net Precipitation	10	6
2c. Depth to Aquifer	5	3
2d. Travel Time	35	15
2e. Potential to Release (lines 2a x (2b + 2c + 2d))	500	240
3. Likelihood of Release (higher of lines 1 and 2e.)	550	240

Waste Characteristics

4. Toxicity/Mobility	a	10,000
5. Hazardous Waste Quantity	a	10
6. Waste Characteristics	100	18

Targets

7. Nearest Well	50	9
8. Population		
8a. Level I Concentrations	b	0
8b. Level II Concentrations	b	0
8c. Potential Contamination	b	14
8d. Population (lines 8a + 8b + 8c)	b	14
9. Resources	5	5
10. Wellhead Protection Area	20	0
11. Targets (lines 7 + 8d + 9 + 10)	b	28

Groundwater Migration Score for an Aquifer

12. Aquifer Score [(lines 3 x 6 x 11)/82,500]	100	1.47
--	-----	------

Groundwater Migration Pathway Score

13. Pathway Score (Sgw) - Highest value for all aquifers evaluated	100	1.47
---	-----	------

a maximum value applies to waste characteristics category
 b maximum value not applicable
 c do not round to nearest integer

Site Name: James River Norwalk Site
 Location: Coweta County, Georgia

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET

DRINKING WATER THREAT

<u>Likelihood of Release</u>	<u>Maximum Value</u>	<u>Assigned Value</u>
1. Observed Release	550	0
2. Potential Release by Overland Flow		
2a. Containment	10	10
2b. Runoff	25	1
2c. Distance to Surface Water	25	20
2d. Potential to Release by Overland Flow lines 2a x (2b + 2c)	500	210
3. Potential to Release by Flood		
3a. Containment	10	10
3b. Flood Frequency	50	0
3c. Potential to Release by Flood (Lines 3a x 3b)	500	0
4. Potential to Release (lines 2d + 3c)	500	210
5. Likelihood of Release (Higher of lines 1 and 4)	550	210

HRS Section 3.1.2

Waste Characteristics

6. Toxicity/Persistence	a	10,000
7. Hazardous Waste Quantity	a	10
8. Waste Characteristics	100	18

Targets

9. Nearest Intake	50	0
10. Population		
10a. Level I Concentrations	b	0
10b. Level II Concentrations	b	0
10c. Potential Contamination	b	0
10d. Population (lines 10a + 10b + 10c)	b	0
11. Resources	5	5
12. Targets (lines 9 + 10d + 11)	b	5

Drinking Water Threat Score

13. Drinking Water Threat Score [(lines 5 x 8 x 12)/82500]	100	0.23
---	-----	------

- a maximum value applies to waste characteristics category
 b maximum value not applicable
 c not rounded to nearest integer

Site Name: James River Norwalk Site
 Location: Coweta County, Georgia

**SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
 (continued)**

HUMAN FOOD CHAIN THREAT

<u>Likelihood of Release</u>	<u>Maximum Value</u>	<u>Assigned Value</u>
14. Likelihood of Release (Same as line 5)	<u>550</u>	<u>210</u>
<u>Waste Characteristics</u>		
15. Toxicity/Persistence/Bioaccumulation	<u>a</u>	<u>500,000.000</u>
16. Hazardous Waste Quantity	<u>a</u>	<u>10</u>
17. Waste Characteristics	<u>100</u>	<u>180</u>
<u>Targets</u>		
18. Food Chain Individual	<u>50</u>	<u>0</u>
19. Population		
19a. Level I Concentrations	<u>b</u>	<u>0</u>
19b. Level II Concentrations	<u>b</u>	<u>0</u>
19c. Potential Human Food Chain Contamination	<u>b</u>	<u>20</u>
19d. Population (lines 19a + 19b + 19c)	<u>b</u>	<u>20</u>
20. Targets (lines 18 + 19d)	<u>b</u>	<u>20</u>
<u>Human Food Chain Threat Score</u>		
21. Human Food Chain Threat Score [(lines 14 x 17 x 20)/82500]	<u>100</u>	<u>9.16</u>

a MAXIMUM VALUE APPLIES TO WASTE CHARACTERISTICS CATEGORY
 b MAXIMUM VALUE NOT APPLICABLE
 c DO NOT ROUND TO NEAREST INTEGER

Site Name: James River Norwalk Site
 Location: Coweta County, Georgia

**SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
 (continued)**

ENVIRONMENTAL THREAT

<u>Likelihood of Release</u>	<u>Maximum Value</u>	<u>Assigned Value</u>
22. Likelihood of Release (Same as line 5)	<u>550</u>	<u>210</u>

Waste Characteristics

23. Ecosystem Toxicity/Persistence/Bioaccumulation	<u>a</u>	<u>500,000,000</u>
24. Hazardous Waste Quantity	<u>a</u>	<u>10</u>
25. Waste Characteristics	<u>100</u>	<u>180</u>

Targets

26. Sensitive Environments		
26a. Level I Concentrations	<u>b</u>	<u>0</u>
26b. Level II Concentrations	<u>b</u>	<u>0</u>
26c. Potential Environmental Contamination	<u>b</u>	<u>8</u>
26d. Population (lines 26a + 26b + 26c)	<u>b</u>	<u>0</u>
27. Targets (line 26d)	<u>b</u>	<u>0</u>

Environmental Threat Score

28. Environmental Threat Score [(lines 22 x 25 x 27)/82500]	<u>60</u>	<u>0.00</u>
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SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORE - WATERSHED

29. Watershed Score (Lines 13 + 21 + 28)	<u>100</u>	<u>9.39</u>
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SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORE - WATERSHED

30. Watershed Score (Sgw) (Highest of all watersheds)	<u>100</u>	<div style="border: 1px solid black; padding: 2px;"><u>9.39</u></div>
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- a maximum value applies to waste characteristics category
 b maximum value not applicable
 c do not round to nearest integer

Site Name: James River Norwalk Site
 Location: Coweta County, Georgia

SOIL EXPOSURE PATHWAY SCORESHEET

RESIDENT POPULATION THREAT

<u>Likelihood of Exposure</u>	<u>Maximum Value</u>	<u>Assigned Value</u>
1. Likelihood of Exposure	550	550

Waste Characteristics

2. Toxicity	a	10,000
3. Hazardous Waste Quantity	a	10
4. Waste Characteristics	100	18

Targets

5. Resident Individual	50	0
6. Resident Population		
6a. Level I Concentrations	b	
6b. Level II Concentrations	b	
6c. Resident Population (lines 6a + 6b)	b	
7. Workers	15	5
8. Resources	5	0
9. Terrestrial Sensitive Environments	c	0
10. Targets (lines 5 + 6c + 7 + 8 + 9)	b	5

Resident Population Threat Score

11. Resident Population Threat [(lines 1 x 4 x 10)/82500]	b	0.60
--	---	------

- a Maximum value applies to waste characteristics category
 b Maximum value not applicable
 c No specific maximum value applies to factor, however, pathway score based solely on sensitive environments is limited to a max of 0.

Site Name: James River Norwalk Site
 Location: Coweta County, Georgia

SOIL EXPOSURE PATHWAY SCORESHEET
 (continued)

NEARBY POPULATION THREAT

Likelihood of Exposure

	Maximum Value	Assigned Value
12. Attractiveness/Accessibility	100	10
13. Area of Contamination	100	20
14. Likelihood of Exposure	500	5

Waste Characteristics

15. Toxicity	a	10,000
16. Hazardous Waste Quantity	a	10
17. Waste Characteristics	100	18

Targets

18. Nearby Individual	1	1
19. Population Within One Mile	b	2
20. Targets (lines 18 + 19)	b	3

Nearby Population Threat Score

21. Nearby Population Threat [(lines 14 x 17 x 20)/82500]	b	0.003
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SOIL EXPOSURE PATHWAY SCORE

22. Soil Exposure Pathway Score (Ssoil) (Lines 11 + 21)	100	0.60
--	-----	------

a Maximum value applies to waste characteristics category
 b maximum value not applicable
 c no specific maximum value applies to factor. However, pathway score based solely on sensitive environments is limited to a max of 0.60.

Site Name: James River Norwalk Site
 Location: Coweta County, Georgia

AIR MIGRATION PATHWAY SCORESHEET

<u>Likelihood of Release</u>	<u>Maximum Value</u>	<u>Assigned Value</u>
1. Observed Release	550	0
2. Potential to Release		
2a. Gas Potential to Release	500	500
2b. Particulate Potential to Release	500	
2c. Potential to Release	500	
3. Likelihood of Release (higher of lines 1 and 2c.)	a	500
<u>Waste Characteristics</u>		
4. Toxicity/Mobility	a	1
5. Hazardous Waste Quantity	a	22
6. Waste Characteristics	100	10
<u>Targets</u>		
7. Nearest Individual	50	20
8. Population		
8a. Level I Concentrations	b	
8b. Level II Concentrations	b	
8c. Potential Contamination	b	14
8d. Population (lines 8a + 8b + 8c)	b	14
9. Resources	5	0
10. Sensitive Environments		
10a. Actual Contamination	c	0
10b. Potential Contamination	c	0.023
10c. Sensitive Environments (lines 10a + 10b)	c	0.023
11. Targets (lines 7 + 8d + 9 + 10c)	b	34.023
<u>Air Migration Pathway Score</u>		
12. Pathway Score (Sair) [(lines 3 x 6 x 11)/82500]	100	2.06

a Maximum value applies to waste characteristics category
 b Maximum value not applicable
 c No specific maximum value applies to factor. However, pathway score based solely on sensitive environments is limited to a max of 0.

HRS Scoresheets

Site Name: James River Norwalk Site
Location: Coweta County, Georgia

SITE SCORING SUMMARY

Groundwater Migration Pathway Score	1.47
Surface Water Migration Pathway Score	9.39
Soil Exposure Migration Pathway Score	0.60
Air Migration Pathway Score	2.06
Overall Site Score	4.87

REGION: 04
STATE : GA

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE
C E R C L I S V 1.2

PAGE: 203
RUN DATE: 01/30/87
RUN TIME: 08:18:49

M.2 - SITE MAINTENANCE FORM

		* ACTION: _	*
EPA ID : GAD003913159			
SITE NAME: JAMES RIVER-NORWALK INC	SOURCE: H	* _____	*
STREET : SPRAYBERRY RD	CONG DIST: 06	* _____	*
CITY : NEWMAN	ZIP: 30264	* _____	*
CNTY NAME: COWETA	CNTY CODE : 077	* _____	*
LATITUDE : 33/23/30.0	LONGITUDE : 084/47/20.0	* _/_/_.	*
LL-SOURCE: R	LL-ACCURACY:	* _	*
SMSA :	HYDRO UNIT: 03130002	* _____	*
INVENTORY IND: Y	REMEDIAL IND: Y	REMOVAL IND: N	FED FAC IND: N
NPL IND: N	NPL LISTING DATE:	NPL DELISTING DATE:	
SITE/SPILL IDS:			
RPM NAME: RAY WILKERSON	RPM PHONE: 404-347-2234	* _____	*
SITE CLASSIFICATION:	SITE APPROACH:	* _	*
DIOXIN TIER:	REG FLD1:	REG FLD2: 6	* _
RESP TERM: PENDING ()	NO FURTHER ACTION ()	* PENDING (_)	NO FURTHER ACTION (_)
ENF DISP: NO VIABLE RESP PARTY ()	VOLUNTARY RESPONSE ()	* _	
ENFORCED RESPONSE ()	COST RECOVERY ()	* _	
SITE DESCRIPTION:			
	* _____		
	* _____		
	* _____		
	* _____		

REGION: 04
STATE : GA

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE
C E R C L I S V 1.2

PAGE: 204
RUN DATE: 01/30/87
RUN TIME: 08:18:49

M.2 - ALIAS/ALIAS LOCATION MAINTENANCE FORM

SITE: JAMES RIVER-NORWALK INC		* ACTION: _		*
EPA ID: GAD003913159	ALIAS SEQ NO: 01			
ALIAS NAME: JAMES RIVER-DIXIE/NORTHERN INC	SOURCE: R	* _____	-	*
ALIAS LOCATION		* ACTION: _		
CONTIGUOUS PORTION OF SITE? C	FED FAC IND: N	* _	-	*
STREET : SPRAYBERRY RD	CONG DIST : 06	* _____	-	*
CITY : NEWNAN	ST: GA ZIP: 30264	* _____	-	*
CNTY NAME: COWETA	CNTY CODE: 077	* _____	-	*
LATITUDE : 33/22/48.0	LONGITUDE : 084/48/12.0	* _/_/_.	-	*
LL-SOURCE: G	LL-ACCURACY:	* _	-	*
SMSA :	HYDRO UNIT: 03130002	* _____	-	*
ALIAS DESCRIPTION:				
* _____		*		
* _____		*		
* _____		*		
* _____		*		

REGION: 04
STATE : GA

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE
C E R C L I S V 1.2

PAGE: 205
RUN DATE: 01/30/87
RUN TIME: 08:18:49

M.2 - ALIAS/ALIAS LOCATION MAINTENANCE FORM

SITE: JAMES RIVER-NORWALK INC

EPA ID: GAD003913159

ALIAS SEQ NO: 02

ALIAS NAME: AMERICAN CAN CO

SOURCE: R

* ACTION: _

ALIAS LOCATION

CONTIGUOUS PORTION OF SITE? C

FED FAC IND: N

STREET : SPRAYBERRY RD

CONG DIST : 06

CITY : NEWNAN

ST: GA ZIP: 30264

CNTY NAME: COWETA

CNTY CODE: 077

LATITUDE : 33/22/48.0

LONGITUDE : 084/48/12.0

LL-SOURCE: G

LL-ACCURACY:

SMSA :

HYDRO UNIT: 03130002

* ACTION: _

ALIAS DESCRIPTION:

* _____ *

* _____ *

* _____ *

* _____ *

REGION: 04
STATE : GA

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE
C E R C L I S V 1.2

PAGE: 206
RUN DATE: 01/30/87
RUN TIME: 08:18:49

M.2 - PROGRAM MAINTENANCE FORM

SITE: JAMES RIVER-NORWALK INC

EPA ID: GAD003913159 PROGRAM CODE: H01 PROGRAM TYPE:

PROGRAM QUALIFIER: ALIAS LINK :

PROGRAM NAME: SITE EVALUATION

DESCRIPTION:

* ACTION: _

* _ *

* _ _ *

* _ _ *

* _ _ *

* _ _ *

* _ _ *

* _ _ *

REGION: 04
STATE : GA

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE
C E R C L I S V 1.2

PAGE: 207
RUN DATE: 01/30/87
RUN TIME: 08:18:49

M.2 - EVENT MAINTENANCE FORM

SITE: JAMES RIVER-NORWALK INC
PROGRAM: SITE EVALUATION

EPA ID: GAD003913159 PROGRAM CODE: H01

EVENT TYPE: DS1

FMS CODE: EVENT QUALIFIER :

EVENT LEAD: E

EVENT NAME: DISCOVERY

STATUS:

DESCRIPTION:

* ACTION: _

* _ _ _ _ _ *

* _ _ _ _ _ *

* _ _ _ _ _ *

* _ _ _ _ _ *

* _ _ _ _ _ *

ORIGINAL

CURRENT

ACTUAL

START:

START:

START:

* _/_/_ _/_/_ _/_/_ *

COMP :

COMP :

COMP : 08/01/80

* _/_/_ _/_/_ _/_/_ *

HQ COMMENT:

* _ _ _ _ _ *

RG COMMENT:

* _ _ _ _ _ *

COOP AGR #

AMENDMENT #

STATUS

STATE X

0

* _ _ _ _ _ *

REGION: 04
STATE : GA

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE
C E R C L I S V 1.2

PAGE: 208
RUN DATE: 01/30/87
RUN TIME: 08:18:49

M.2 - EVENT MAINTENANCE FORM

* ACTION: _

SITE: JAMES RIVER-NORWALK INC
PROGRAM: SITE EVALUATION

EPA ID: GAD003913159 PROGRAM CODE: H01

EVENT TYPE: PA1

FMS CODE: EVENT QUALIFIER :

EVENT LEAD:

EVENT NAME: PRELIMINARY ASSESSMENT

STATUS:

DESCRIPTION:

* _ _ _ _ _ *

* _ _ _ _ _ *

* _ _ _ _ _ *

* _ _ _ _ _ *

ORIGINAL

CURRENT

ACTUAL

START:

START:

START: 09/01/82

* _/_/_ _/_/_ _/_/_ *

COMP :

COMP :

COMP : 09/01/82

* _/_/_ _/_/_ _/_/_ *

HQ COMMENT:

* _ _ _ _ _ *

RG COMMENT:

* _ _ _ _ _ *

COOP AGR #

AMENDMENT #

STATUS

STATE %

0

* _ _ _ _ _ *

REGION: 04
STATE : GA

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE
C E R C L I S V 1.2

PAGE: 209
RUN DATE: 01/30/87
RUN TIME: 08:18:49

M.2 - EVENT MAINTENANCE FORM

SITE: JAMES RIVER-NORWALK INC
PROGRAM: SITE EVALUATION

EPA ID: GAD003913159 PROGRAM CODE: H01

EVENT TYPE: SI1

FMS CODE: EVENT QUALIFIER :

EVENT LEAD: E

EVENT NAME: SITE INSPECTION

STATUS:

DESCRIPTION:

* ACTION: _

* _ _ _ _ *

* _ _ _ _ *

* _ _ _ _ *

* _ _ _ _ *

* _ _ _ _ *

* _ _ _ _ *

* _ _ _ _ *

ORIGINAL

CURRENT

ACTUAL

START:

START:

START: 03/27/85

* _/_/_ _/_/_ _/_/_ *

COMP :

COMP :

COMP : 05/28/85

* _/_/_ _/_/_ _/_/_ *

HQ COMMENT:

* _ _ _ _ *

RG COMMENT:

* _ _ _ _ *

COOP AGR #

AMENDMENT #

STATUS

STATE X

0

* _ _ _ _ *

REGION: 04
STATE : GA

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE
C E R C L I S V 1.2

PAGE: 210
RUN DATE: 01/30/87
RUN TIME: 08:18:49

M.2 - COMMENT MAINTENANCE FORM

SITE: JAMES RIVER-NORWALK INC

EPA ID: GAD003913159

COM
NO COMMENT

001 PART A- ON FILE

002 ESD SITE SCREENING WEEK OF 85/02/18

ACTION

*	-	_____	*
*		_____	*
*	-	_____	*
*		_____	*

FEB 19 1985

4WD-FR

Mr. Richard Lindquist
American Can Company
P.O. Box 489
Newnan, GA 30264

Dear Mr. Lindquist:

This letter is confirm the pending site screening study at the American Can Company (EPA ID #GAD003103159) scheduled in a recent telephone conversation. The site inspection will be conducted on Thursday, February 21, 1985, by personnel from EPA Region IV's Environmental Services Division (ESD). Someone from ESD will contact you prior to the actual site visit to make final arrangements and note any changes.

The persons that will be present for this on-site screening study are as follows: Bill Bokay, ESD; Sue Fields, WD. State personnel may also plan to attend.

Plans have been made to take samples at the site. If you desire split samples, you will be required to furnish your own containers as well as your own laboratory analyses.

Thank you for your cooperation and assistance in this inspection. If you have any questions, please call me at (404) 881-2234.

Sincerely yours,

Camilla Bond Warren
Environmental Engineer
Investigation & Compliance Section

cc: Joe Suroweic, Georgia Environmental Protection Division

CWARREN:cej:Lex 34:02/19/85



JOE D. TANNER
Commissioner

J. LEONARD LEDBETTER
Division Director

Attachment 1

Department of Natural Resources

ENVIRONMENTAL PROTECTION DIVISION
270 WASHINGTON STREET, S.W.
ATLANTA, GEORGIA 30334

March 8, 1983

Ms. Therese Sathua
Manager, Southwest
James River Corporation
Post Office Box 2260
Greenwich, CN 06830

Dear Ms. Sathua:

We have reviewed information submitted by you pursuant to Section 104(e) and 103(c) of CERCLA. The following conclusions are delineated:

1. The James River Corporation (formerly The American Can Company) disposed of hazardous waste from an offset platemaking operation from 1975 to 1980.
2. All waste was discharged behind the plant via a five-leg Class A sand filter drainfield.

In consideration of the above conclusions you are hereby requested to submit to this office a proposal to define subsurface contamination and any contaminant migration which may be occurring at this site.

Members of our staff are available to discuss, in detail, the scope of the above mentioned investigation. Please notify our office of your intention prior to April 1, 1983. All correspondence should be addressed to:

Georgia Environmental Protection Division
Industrial & Hazardous Waste Management Program
270 Washington Street, S.W.
Atlanta, Georgia 30334

If you have any questions, please contact me or Jim Ussery at 404/656-2833.

Sincerely,

John D. Taylor, Jr.
Program Manager
Industrial & Hazardous Waste
Management Program

JDT:mg
cc: Jim Ussery



JOE D. TANNER
Commissioner

Department of Natural Resources

ENVIRONMENTAL PROTECTION DIVISION
270 WASHINGTON STREET, S.W.
ATLANTA, GEORGIA 30334

J. LEONARD LEDBETTER
Division Director

February 7, 1983

M E M O R A N D U M

TO: Jim Ussery
THRU: Joe Surowiec *JH*
FROM: Shirley Maxwell *SFM*
SUBJECT: James River Corporation
Hazardous Nature of Drainfield

COMMENTS: Since this involves soil analysis a blank should be taken from an uncontaminated area. I recommend the following tests on representative samples:

1. EP Metals:

Silver
Mercury
Chromium (total & hex)
Copper
Arsenic
Lead

2. pH of a 10% slurry

3. Cyanide - Amenable to chlorination and Total Cyanide. (No EP)

For this the soil should be iced immediately, and extracted and analyzed within 24 hours. Stress use of Magnesium Chloride in the procedure instead of Copper Chloride since thiocyanate might interfere.

4. Phenolics

This sample should also be iced immediately and analyzed within 24 hours.

I talked with Mr. Lindquist who informed me that in addition to plating, a photographic process was performed there in the past.

SFM:mg



JOE D. TANNER
Commissioner

Department of Natural Resources

ENVIRONMENTAL PROTECTION DIVISION

270 WASHINGTON STREET, S W
ATLANTA, GEORGIA 30334

J. LEONARD LEDBETTER
Division Director

February 7, 1983

M E M O R A N D U M

TO: Shirley Maxwell
THRU: Joe Surowiec
FROM: *JL* Jim Ussery
RE: Attached Correspondence from James River Corporation

For your edification, the James River Corporation (formerly American Can Company) disposed of waste from a platemaking operation from 1975 through 1980. The waste was disposed of via a shallow drainfield.

The attached correspondence is the best information available pertaining to the waste available. Please review this information and recommend sampling parameters to define the extent of contamination which may exist at this site.

If you have any questions please let me know.

JU:mg



JAMES RIVER CORPORATION

P.O. Box 2260, Greenwich, CT 06830

THERESE E. SATHUE
Manager
Environmental Affairs
Operations Technology
(203) 552-2181

January 7, 1983

Mr. John D. Taylor, Jr.
Program Manager
Industrial and Hazardous
Waste Management Program
Department of Natural Resources
Environmental Protection Division
270 Washington Street, S.W.
Atlanta, GA 30334

RE: JAMES RIVER CORPORATION
Sprayberry Road
Newnan, Georgia 30264
CERCLA 103(c) Notification

Dear Mr. Taylor:

Your letter of December 9, 1982 requested additional information regarding the on-site drainfield reported to EPA on June 6, 1981.

The drainfield is a five-leg Class A sand filter system with the approximate dimensions of 100 feet by 58 feet and a design capacity of 5,000 gallons/day. It is located in the northeast section of our property and surrounded by mostly wooded areas. Attachment One consists of three drawings pertaining to the drainfield's location and design.

The drainfield was utilized from March, 1975 through June, 1980. Until 1979, it is estimated that the drainfield received a maximum volume of 1500 gallons/day; e.g., water mixed with 15 gallons/day of waste. During 1979 and 1980, the volume declined to a maximum of 1000 gallons/day.

Mr. John D. Taylor, Jr.
Page 2
January 7, 1983

The waste was generated from a platemaking operation using the following solution:

<u>Solution</u>	<u>Estimated Yearly Amount</u>
Potassium Bichromate Solution	500 gallons
Deep Etch Developing Solution	1000 gallons
Aluminum Etch PT	800 galons
Copper Solution (98% Aluminum, 2% Copper)	1000 gallons
A Developer	30 gallons
B Developer	30 gallons
A Fixer	125 gallons
B Fixer	12 gallons
Acetic Acid	6 gallons
Mercuric Chloride	5 ounces
Potassium Ferricyanide	5 ounces

Other information on the waste constituents consists of two analyses (See Attachment Two).

The above data represent our best available information pertaining to this subject.

Very truly yours,

JAMES RIVER CORPORATION

Therese E. Sathue

Therese Sathue

TS/pah
Attachments

GEORGIA Registered Surveyor

GEORGIA Registered Surveyor

- Woods.
(mostly pines)

20.6 acres

Drain Tile Field

Spur Track

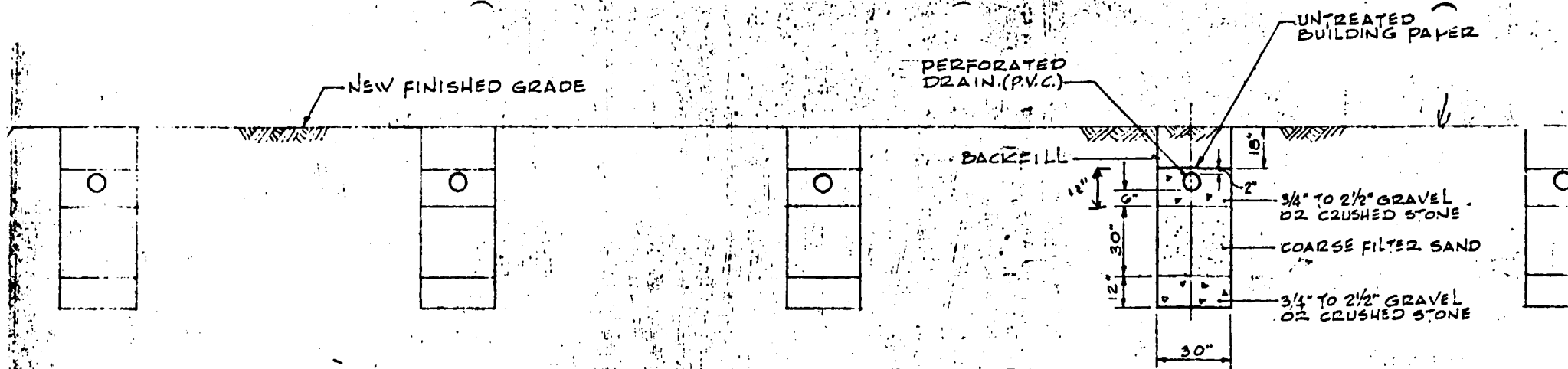
Blood's Line

S 53° 10' W 224.4'

Arc = 225°

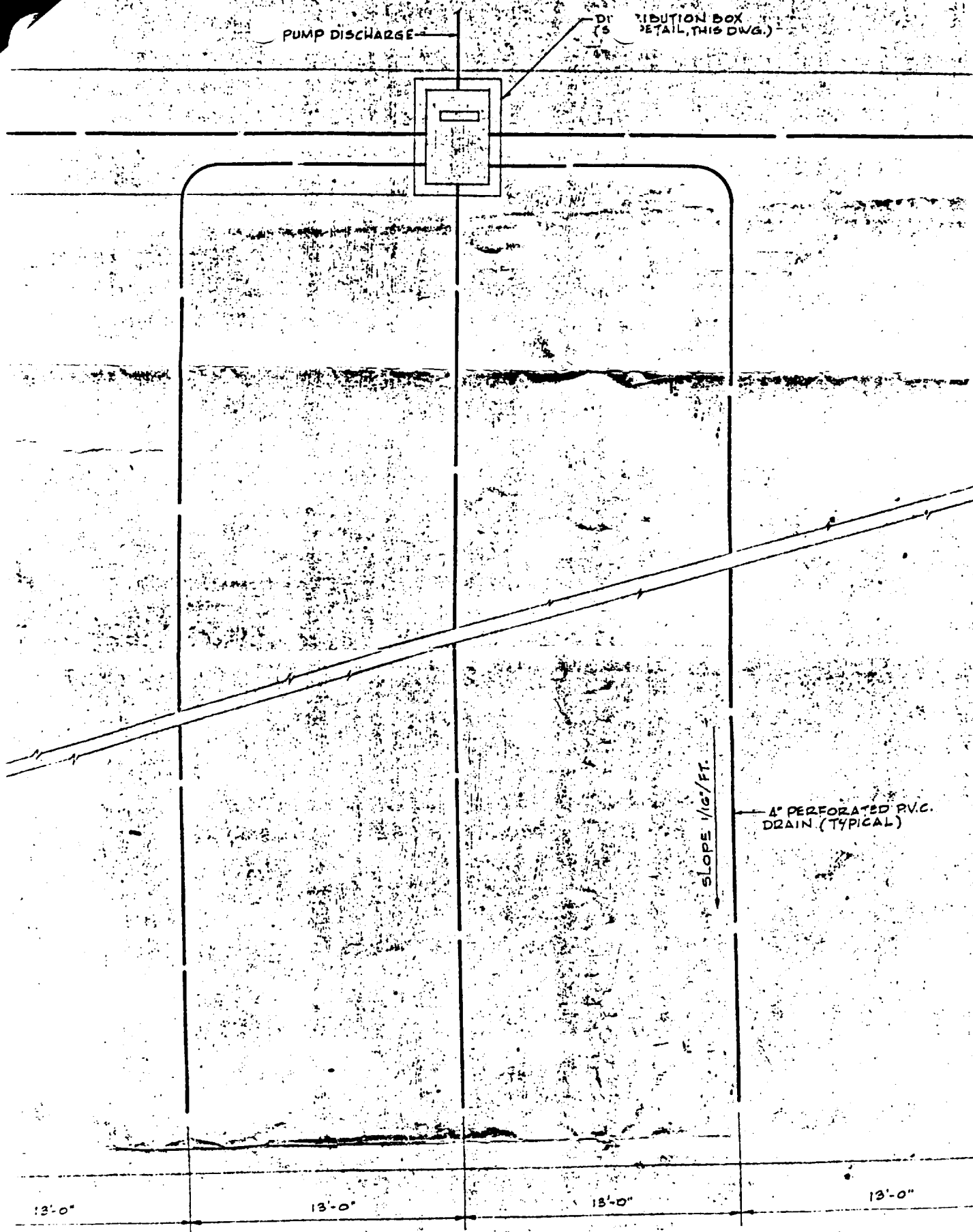
S 37° 18' E 592.2'

ATTACHMENT ONE



SECTION THRU TILE FIELD

SCALE ~ 1/4" = 1'-0"



PLAN of TILE FIELD

ATTACHMENT ONE

Issued: April 26, 1971.
Our Report No. 1409 A
Your Purchase Order No. 540-448
Dated: 3/24/71.

To: American Can Company
Newnan, Georgia 30263.

Sample	1(WHI)	2(DEV)	3(SOAK)	4(DRA)
pH	7.8	1.1	7.5	3.2
Hexavalent Chromium	4420	< 0.02	7.74	< 0.02
Copper		5640		25.6
Lead	1.43	13.1	< 0.05	0.86
Arsenic	1.47	66.2	< 1.0	< 1.0
Hexane-soluble, % of which:			1.0	2.0
Grease, %			100	2
Hydrocarbons, %			None	98

Note: On re-dissolving of hexane-solubles, it was found that sample 4 would not dissolve completely in n-hexane; small parts of the material must have polymerized and become insoluble. The percentage of these insolubles of blueish color residue is 0.01.

ATTACHMENT TWO



DUNN LABORATORIES, INC.
CHEMISTS AND CHEMICAL ENGINEERS
717 EDGEHILL AVENUE, N. W. - ATLANTA, GEORGIA 30318

873-6159
CODE 404

November 14, 1979

American Can Company
P.O. Box 489
Sprayberry Road
Newnan, Georgia 30263

Attention: Dean Hilmer

Samples: Water received 11/1/79

Lab. Nos.: 37758 Plate Room Waste
37759 Chilled Water

CERTIFICATE OF ANALYSIS

		<u>37758</u>
Cadmium mg/l	less than	0.02
Chromium, mg/l		24.2
Lead, mg/l	less than	0.2
Nickel, mg/l	less than	0.1
Zinc, mg/l		782
Silver, mg/l	less than	0.06
Copper, mg/l		0.57
Strontium, mg/l		2.1
Mercury, mg/l	less than	0.001

	<u>37759</u>
Total Bacteria, colonier/100ml	1120
Total Coliform colonies/100ml	310

Respectfully submitted,

DUNN LABORATORIES, INC.

APPROVED:

Grover Dunn
Grover Dunn, P.E.

WVG/ll

William W. Gardiner
William W. Gardiner
Laboratory Manager, Chemist

ATTACHMENT TWO



JAMES RIVER CORPORATION

P.O. Box 2260, Greenwich, CT 06830

THERESE E. SATHUE
Manager
Environmental Affairs
Operations Technology
(203) 552-2181

December 30, 1982

Mr. John D. Taylor, Jr.
Program Manager
Department of Natural Resources
Environmental Protection Division
Industrial and Hazardous Waste
Management Program
270 Washington Street, S.W.
Atlanta, Georgia 30334

RE: JAMES RIVER-DIXIE/NORTHERN, INC.
Sprayberry Road, P.O. Box 489
Newnan, Georgia
Notification of Hazardous Waste Site
(EPA Form 8900-1)

Dear Mr. Taylor:

Your letter of December 9, 1982 on the above captioned subject requested additional information on the Notification of Hazardous Waste Site (EPA Form 8900-1) filed by our Newnan facility.

Confirming our conversation of December 29, 1982, we are requesting a ten-day extension of the original deadline date of January 5, 1983 and will submit the requested information to your office by January 15, 1983.

Thank you for your understanding in this matter.

Very truly yours,

Therese Sathue/ph

Therese Sathue

TS/pah

cc: Mr. J. Ussery
Department of Natural Resources
Atlanta, Georgia
File: Newnan/Superfund Notification



JOE D. TANNER
Commissioner

Department of Natural Resources

ENVIRONMENTAL PROTECTION DIVISION

270 WASHINGTON STREET, S.W.

ATLANTA, GEORGIA 30334

J. LEONARD LEDBETTER

Division Director

December 8, 1982

TRIP REPORT

SITE NAME James River/Dixie North, (Formerly American Can Co.)
AND LOCATION: Sprayberry Road, Newnan, Coweta County, Georgia 30264

TRIP BY: *JH* Jim Ussery, Environmental Specialist

ACCOMPANIED BY: Alone

DATE OF TRIP: 11-28-82

OFFICIALS Richard Linquist, Plant Manager
CONTACTED: Sprayberry Road, Newnan, Georgia 30264 (404) 253-4771

REFERENCE: CERCLA 103C Notification

COMMENTS: This company disposed of platemaking chemicals from an off-set platemaking operation from 1973 to 1979. Hazardous constituents of waste consisted primarily of heavy metals and organics. (A detailed analysis of the waste stream has been requested.)

The waste was pumped from the plant to a distribution box behind the plant (see attached schematic of drainfield). The distribution box was drained by five drain tile laterals similar to a common septic tank system. The system was designed to handle 5,000 gallons per day but 1,500 gallons per day is reportedly the maximum put through the system.

The drainfield consists of five lines of four (4) inch perforated PVC pipe, 100 feet long and 52 feet apart. In 1979 the process changed, now all waste goes to the city sewer.

CONCLUSIONS: Hazardous waste in liquid form was buried at this site for six years.

RECOMMENDATIONS:

Pursuant to Section 104(e) of CERCLA the company has been requested to submit detailed waste analysis and disposal information. Based on this information the scope of any further work will be defined.

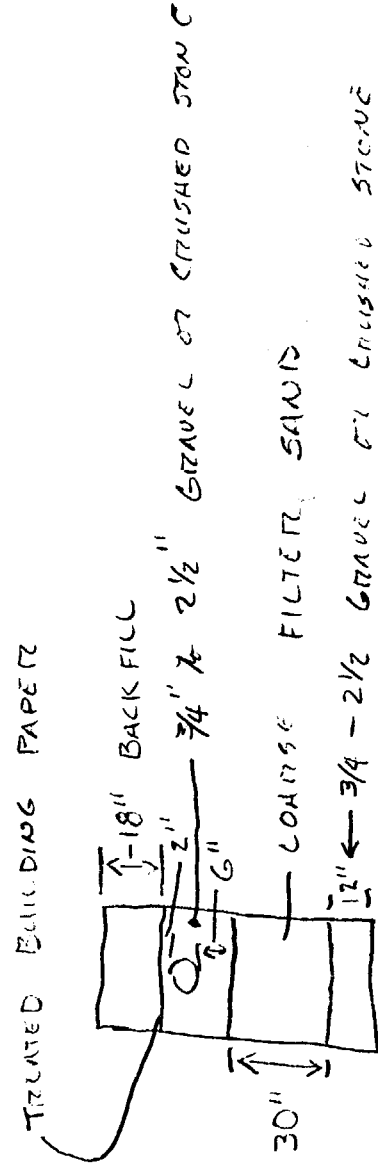
Photographs: None

Reviewed by:

Attachments: 1. Schematic of drainfield
2. Typical drain line installation

LINES 100 FT LONG
 52 FT APART
 5 - LINE 4" PVC

Pumped from plant to distribution box



OFF SET PLATE MAKING OPERATION

WISCONSIN - ENV SECTION

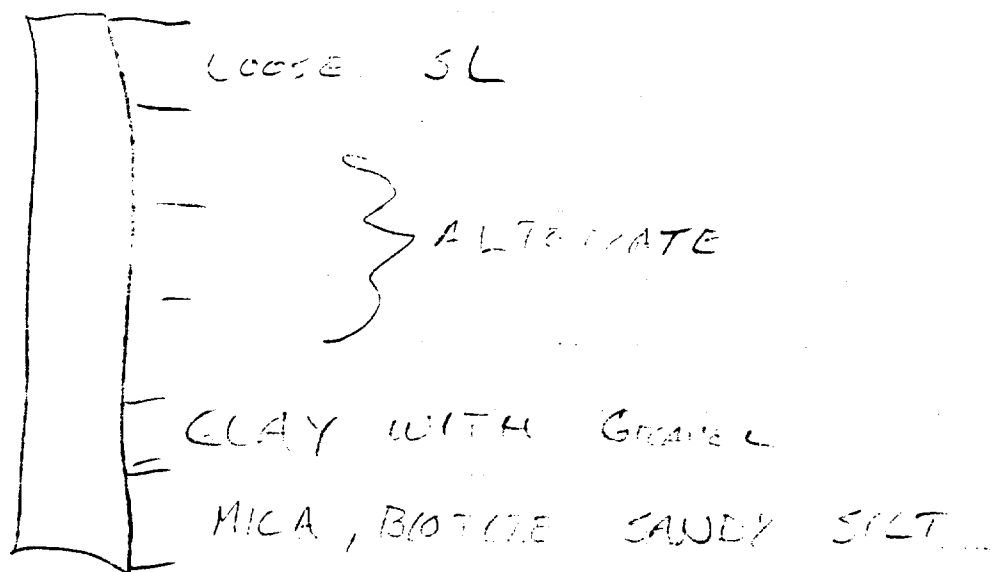
designed for 5,000 GAC A DAY

870 GAC A DAY - measured

1500 GAC A DAY MAX

Final plates
 74 10 70

CHANGED PROCESS
 100 10 70



Storage Tank

Water Line to
Auto Wash - 125' approx. distance



Tank

Water Shed

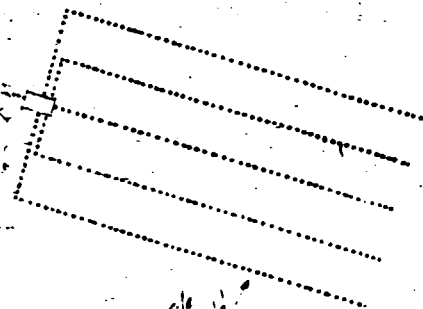


Old

Water Line

PP

Water Line to Garage - 75' approx.



Drain Tile Field

Spur Track

20.0

REGION IV

PEER REVIEW CLEARANCE FORM

FEB 11 1985

Route To: Floyd, Knight, Guinyard, Zeller Date Transmitted: _____

Return To: Cindy Kesler, Eng. Support Branch, Athens Date Returned: _____

Peer Review Originator (Panel Member): James H. Finger, Director, ESD
Billy H. Adams

Project Title: Study Plan, American Can Company, Newnan, Coweta County,
Georgia

Project Manager: Ken Barry

Originator's Instructions: If comments are not received within 10 working days
from the transmittal date, it will be assumed that the report is
acceptable as written.

Information Copies Sent To: Sargent, Rhodes, Camilla Warren, Bennett, Dick Green
Jon Johnson

Signature (Panel Member)	Date Received	Date Cleared	Concur	Non-Concur

Reviewing Officials	Date Received	Date Review Completed	Reviewer's Signature
1.			
2.			
3.			
4.			

Reviewing Panel Member's Comments: _____

STUDY PLAN
AMERICAN CAN COMPANY
NEWNAN, COWETA COUNTY, GEORGIA
FEBRUARY 1985
ESD #85-121 -
ACCT. #5TFA04DCZZ

INTRODUCTION

The U. S. Environmental Protection Agency (EPA), Region IV, Environmental Services Division (ESD), Hazardous Waste Section (HWS) will conduct a site screening investigation at the James River Corporation's (Formerly American Can Company) off-set platemaking operation, located in Newnan, Coweta County, Georgia during the week of February 18, 1985. This investigation was requested by the US-EPA, Waste Management Division, Residuals Management Branch, Investigation and Compliance Section (ICS).

BACKGROUND

During the period March 1975 - June 1980, American Can Company disposed of waste from an off-set platemaking operation in a five leg, drainfield on their plant property. This drainfield was similar in construction to domestic septic tank system drainfields. The drainfield was designed for a maximum flow of 5,000 gal/day, although the maximum flow received was only 1,500 gal/day. Of this 1,500 gal/day, 15 gal/day was reported to be waste material and the remainder was washwater. The total amount of waste material which was disposed of in the drainfield is estimated at 21,600 gal.

The drainfield consisted of five 100 foot long, four inch diameter PVC laterals fed from a common distribution box. The drainfield measured 52 feet across the laterals giving a surface area of 5,200 square feet. It is located on the knoll of a hill approximately 50 to 100 feet from a stream. Between the drainfield and the stream is an approximately 30 foot bluff. The waste material is reported to have contained cyanide, arsenic, mercury, chromium, copper, lead, and phenols.

SCOPE

The site screening investigation at the American Can Company site will be limited to an evaluation of contaminate concentrations at the site and contaminate migration from the site via surface waters and leachate streams. It is anticipated that no potable well water samples will be collected during this investigation.

OBJECTIVES

The objectives of the American Can Company site screening investigation are:

- 1) to determine if the soil in the drainfield area is contaminated, and if so describe the location and concentration of the contaminants present,
- 2) to locate and sample any leachate streams originating from the plant site, and
- 3) to gather background information on the site.

METHODOLOGY

All sampling will be conducted in accordance with the Water Surveillance Branch Standard Operating Procedures and Quality Assurance Manual (Draft, August, 1980). all laboratory analyses will be performed in accordance with the Analytical Support Branch Operations and Quality Control Manual (April, 1982) or as specified by the existing U. S. Environmental Protection Agency procedures and protocols for contract laboratories.

The estimated number of samples and parameter coverage are shown in Table 1. Field personnel will be responsible for the final selection of the sampling sites which could have an impact on the number and types of samples to be collected.

Any soil samples, leachate stream, surface water, and well water samples will be collected by the sampling team by working from the non-contaminated areas toward the suspected contaminated areas. It is anticipated that a total of five soil samples (including a composite of a single auger hole into the drainfield material), two sediment samples, two surface water samples and two leachate samples will be collected during the site screening investigation. All samples collected will be analyzed for extractable organics (including pesticides), metals (including mercury), volatile organic compounds, and cyanides.

SAFETY

The field investigation will be conducted in accordance with the Region IV, Field Health and Safety Manual, Category I, Personnel Protection Level D (or equivalent). During the site reconnaissance, the project leader may require the sampling personnel to survey the site with the photoionization detector. If needed, sampling personnel will have available Personnel Protection Level C safety equipment and clothing. Safety glasses, hard hats, and steel toed boots will be worn when specified by the project leader. The sampling team will be provided with a first aid kit. The name, location, and phone numbers of the area hospital, fire department, and rescue squad will be obtained before beginning the investigation.

LOGISTICS

Personnel

William Bokey - Environmental Engineer, Project Leader
William Cosgrove - Environmental Engineer
William Barry - Environmental Engineer

Schedule

Feb. 19	- Travel to Cordele, Georgia and begin sampling at Gold Kist.
Feb. 20	- Finish sampling at Gold Kist and travel to Newnan, Georgia.
Feb. 21	- Sample at American Can Company and return to Athens, Georgia.
Feb. 22	- Ship samples to contract lab.
Apr 19	- Analytical data reported by contract laboratory.
May 17	- Draft report transmitted for peer review.
May 31	- Peer review comments received.
June 14	- Final report issued.

Resource Estimates

See table 2.

TABLE 1
ESTIMATED NUMBER OF SAMPLES/PARAMETER COVERAGE
AMERICAN CAN COMPANY
NEWNAN, GEORGIA

<u>STATION</u>	<u>SAMPLE TYPE</u>	<u>NUMBER OF SAMPLES</u>	<u>EXT. ORG. PESTICIDES</u>	<u>VOLATILE ORGANICS</u>	<u>METALS/MERCURY</u>	<u>CYANIDES</u>	<u>pH</u>	<u>CONDUCTIVITY</u>
Drainfield (Specified locations)	Soil	5	5	5	5	5	-	-
Surface Water Drainage Areas	Sediment	2	2	2	2	2	-	-
"	Water	2	2	2	2	2	*	*
"	Leachate	2	2	2	2	2	-	-

*Determined in field

TABLE 2
RESOURCE ESTIMATE

<u>STUDY ELEMENT</u>	<u>MAN-DAYS</u>	<u>COST</u>
Study Planning and Preparation	9	\$1,800
Field Work and Sampling	6	\$1,200
Laboratory Support	**	**
Reporting and Follow-up	9	\$1,800
Travel	<u>24</u>	<u>\$450</u>
		\$5,250*

** Contract lab, not estimated

EPA Notification of Hazardous Waste Site

U.S. State
Environmental Protection
Agency
Washington, D.C. 20460

This initial notification information is required by Section 103(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and must be mailed by June 9, 1981.

Please type or print in ink. If you need additional space, use separate sheets of paper. Indicate the letter of the item which applies.

810608

GAS 000 001 038

A Person Required to Notify:

Enter the name and address of the person or organization required to notify.

Name American Can Company
Street Sprayberry Road, P.O. Box 489
City Newnan State GA Zip Code 30264

B Site Location:

Enter the common name (if known) and actual location of the site.

Name of Site American Can Company
Street Sprayberry Road, P.O. Box 489
City Newnan County Coweta State GA Zip Code 30264

C Person to Contact:

Enter the name, title (if applicable), and business telephone number of the person to contact regarding information submitted on this form.

Name (Last, First and Title) Sathue, Therese, Manager, Solid Waste Compliance
Phone 203-552-2181

D Dates of Waste Handling:

Enter the years that you estimate waste treatment, storage, or disposal began and ended at the site.

From (Year) 1973 To (Year) 1979

E Waste Type: Choose the option you prefer to complete

Option 1: Select general waste types and source categories. If you do not know the general waste types or sources, you are encouraged to describe the site in Item I—Description of Site.

General Type of Waste:
Place an X in the appropriate boxes. The categories listed overlap. Check each applicable category.

1. ☒ Organics
2. ☐ Inorganics
3. ☐ Solvents
4. ☐ Pesticides
5. ☒ Heavy metals
6. ☐ Acids
7. ☐ Bases
8. ☐ PCBs
9. ☐ Mixed Municipal Waste
10. ☐ Unknown
11. ☒ Other (Specify)
Water

Source of Waste:
Place an X in the appropriate boxes.

1. ☐ Mining
2. ☐ Construction
3. ☐ Textiles
4. ☐ Fertilizer
5. ☐ Paper/Printing
6. ☐ Leather Tanning
7. ☐ Iron/Steel Foundry
8. ☐ Chemical, General
9. ☒ Plating/Polishing
10. ☐ Military/Ammunition
11. ☐ Electrical Conductors
12. ☐ Transformers
13. ☐ Utility Companies
14. ☐ Sanitary/Refuse
15. ☐ Photofinish
16. ☐ Lab/Hospital
17. ☐ Unknown
18. ☐ Other (Specify)

Option 2: This option is available to persons familiar with the Resource Conservation and Recovery Act (RCRA) Section 3001 regulations (40 CFR Part 261).

Specific Type of Waste:
EPA has assigned a four-digit number to each hazardous waste listed in the regulations under Section 3001 of RCRA. Enter the appropriate four-digit number in the boxes provided. A copy of the list of hazardous wastes and codes can be obtained by contacting the EPA Region serving the State in which the site is located.

JUN 8 12 32 PM '81
EPA REGION IV
DIVISION

RECEIVED
EPA/REGION IV

000321



American Can Company

Therese Sathue
Manager, Solid Waste Compliance
Corporate Public Affairs

American Lane
Greenwich, Connecticut 06830
203-552-2181

June 4, 1981

U.S. Environmental Protection
Agency - Region 4
Sites Notification
Atlanta, GA 30308

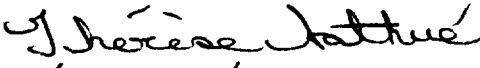
RE: AMERICAN CAN COMPANY
Sprayberry Road
P.O. Box 489
Newnan, GA 30264

Dear Sir:

Attached is a completed EPA Form 8900-1 for the above
captioned location.

Very truly yours,

AMERICAN CAN COMPANY


Therese Sathue

TS/pah
Attachment

TECHNICAL PAPER NO. 40

RAINFALL FREQUENCY ATLAS OF THE UNITED STATES
for Durations from 30 Minutes to 24 Hours and
Return Periods from 1 to 100 Years

Prepared by
DAVID M. HEASHELD
Comparative Studies Section, Hydrologic Sciences Division

for
Engineering Division, Soil Conservation Service
U.S. Department of Agriculture



Reference #18

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FILE I

2-YEAR 24-HOUR RAINFALL (INCHES)

